

Vernelle A. A. Noel

Assistant Professor of Computational Design

Address Carnegie Mellon University, Pittsburgh, PA. 15213
Margaret Morrison Carnegie Hall

E-mail vnoel@andrew.cmu.edu

URL vaanoel.com

SIT.CO.DE Lab sit-code.com

Education

- 2019 Ph.D. in Architecture: Design Computing.
Pennsylvania State University, University Park, PA., USA.
Department of Architecture. Stuckeman Fellow.
- 2013 Master of Science in Architectural Studies (SMArchS): Design and Computation.
Massachusetts Institute of Technology, Cambridge, MA., USA.
School of Architecture and Planning.
- 2007 Professional Bachelor of Architecture (B.Arch)
Howard University, Washington, DC., USA.
- 1999 Diploma in Civil Engineering
John S. Donaldson Technical Institute, Port of Spain, Trinidad.

Academic Appointments

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|-------------------|---------|---|
| Faculty Positions | 2023- | Assistant Professor of Computational Design (tenure-track)
School of Architecture,
Carnegie Mellon University, Pittsburgh, PA. |
| | 2021-23 | Assistant Professor of Architecture and Interactive Computing (tenure-track)
School of Architecture,
Georgia Institute of Technology, Atlanta, Georgia. US. |
| | 2020-21 | Assistant Professor of Architecture and Computational Design (tenure-track)
School of Architecture,
University of Florida, Gainesville, US. |

	2016-18	Instructor Department of Architecture, Penn State University, University Park, PA.
Fellowships	2021	Visiting Assistant Professor Integrative Computational Design and Construction for Architecture (IntCDC) University of Stuttgart, Stuttgart, Germany.
	2018-20	Visiting Assistant Professor in Architecture: Ventulett NEXT Generation Fellow School of Architecture in the College of Design, Georgia Institute of Technology, Atlanta, US.
	2013-14	Visiting Fellow School of Architecture and Sustainable Design. Singapore University of Technology & Design (SUTD), Singapore.
Research & Teaching Assistantships	2012-13	Massachusetts Institute of Technology, School of Architecture and Planning, Cambridge, MA. <ul style="list-style-type: none"> - Digital Design and Fabrication Group - Special Interest Group in Urban Settlements (SIGUS) Massachusetts Institute of Technology, School of Architecture and Planning, Cambridge, MA. <ul style="list-style-type: none"> - Program Manager for MIT Summer Research Program (MSRP) - MIT Program in Art, Culture + Technology (ACT)

Professional Appointments

VAAN Design Lab	2015-17	Head Designer & Director
IAAA	2010-11	Independent Architect + Design Consultant, Trinidad.
Burt Hill (Stantec)	2008-9	BIM Manager and Project Architect, Ahmedabad, India.
	2007-8	Graduate Architect, Washington, DC.
IAAA	2005-7	Architectural Designer, Washington, DC.
R.McGhee + Assoc.	2004-5	Intern Architect, Washington, DC.
SI Surveyors	2001-02	Engineering Technician and Surveyor, Point Fortin, Trinidad.
BRW Partnership	1999-2001	Architectural Technician, Trinidad.

Brian Awai & Architecture Tomorrow	1999-2001	Architectural Technician, Trinidad.
SI Surveyors	1997-99	Engineering Technician and Surveyor, Pt. Lisas, Trinidad.
Colin Laird Associates	1996-97	Architectural Technician, Trinidad.

Honors and Awards

- 2023 Spring 2023 Course Instructor Opinion Survey (CIOS) Honoree >>
- 2021 Visiting Professor (Fellowship), Integrative Computational Design and Construction for Architecture. University of Stuttgart, Germany. Invited by Dr. Cordula Cropp and Achim Menges. >>
- 2021 DigitalFUTURES Young Award “for exceptional research and scholarship in the field of critical computational design.” >>
- 2018-20 Ventulett NEXT Generation Fellowship, College of Design: School of Architecture, Georgia Institute of Technology.
- 2014-17 Stuckeman Center for Design Computing (SCDC) Fellowship for Ph.D. in Design Computing, Department of Architecture, Penn State University.
- 2011-13 Graduate Fellowship Award for SMArchS in Design and Computation, School of Architecture & Planning, Massachusetts Institute of Technology.

Edited Volumes

- | | | |
|----------|------|---|
| Journals | 2023 | Yana Boeva and Vernelle A. A. Noel , 2023. “Editorial: Critical Computational Relations in Design, Architecture and the Built Environment.” <i>Digital Creativity Special Issue. Volume 34, Issue 2.</i> >> |
| | 2022 | Kathrin Dörfler, Stefana Parascho, Jane Scott, Biayna Bogosian, Behnaz Farahi, June A. Grant, Jose Luis García del Castillo y López, and Vernelle A A Noel , eds. 2022. <i>ACADIA 2021 Realignments: Toward Critical Computation: Proceedings of the 41st Annual Conference of the Association for Computer Aided Design in Architecture.</i> Acadia Publishing Company. |

Refereed Publications

- Journal Articles
- 2022 Noel, Vernelle AA. “Computational Regionalism: De-Familiarization of Tectonics in the Wire-Bending Craft.” *International Journal of Architectural Computing (IJAC)*, June 2, 2022. >>
- 2021 Noel, Vernelle A.A, Yana Boeva, and Hayri Dortdivanlioglu. 2021. “The Question of Access: Toward an Equitable Future of Computational Design.” *International Journal of Architectural Computing* 19 (4) (November): 496–511. >>
- 2020 Noel, Vernelle A. A. 2020. “Situated Computations: Bridging Craft and Computation in the Trinidad and Tobago Carnival.” *Dearq*, no. 27 (July): 62–75. >>
- 2017 Vernelle A. A. Noel. “Digitally Displaying and Interacting with Historic Artifacts of Spatial, Temporal, Corporeal, and Kinetic dimensions,” *Studies in Digital Heritage* (December 2017): 251-268. >>
- 2015 Vernelle A. A. Noel. “The Bailey-Derek Grammar: Recording the Craft of Wire-Bending in the Trinidad Carnival,” *Leonardo* 48, no.4 (August 2015): 357-365. >>

Refereed Conferences

- Presentations
- 2022 **Vernelle A. A. Noel** and Hayri Dortdivanlioglu. “Artificial Intelligence and Architecture: Challenges and Implications” in Critical Digital Humanities. University of Toronto (30 Sept. – 1 Oct).
- Papers
- Danielle S. Willkens and **Vernelle A. A. Noel**. “The Radical (re)Construction of Memory in the American South” in International Conference on Structures & Architecture (ICSA2022).
- 2021 **Vernelle A. A. Noel**, Niloofar Nikookar, Jamieson Pye, Phuong Tran, and Sara Laudeman. “The Infinite Line Active Bending Pavilion: Culture, Craft and Computation.” In PROJECTIONS, Proceedings of the 26th *International Conference of the Association for Computer-Aided Architectural Design Research in Asia (CAADRIA) 2021*, Volume 1, 351-360. Hong Kong. (Mar). >>
- 2019 Vernelle A. A. Noel. “Reviving a Craft through Architecture: Computational Making of a lightweight pavilion based on wire-bending techniques,” in *Form and Force*, Proceedings of the International Association for Shell and Spatial Structures Annual Symposium 2019 – Structural Membranes 2019 – IASS, Barcelona, Spain. (October 2019).

Vernelle A. A. Noel. "Design Computation and Restoring Craftsmanship: The Bailey-Derek Grammar in Wire-Bending," in *Hello Culture!* Proceedings of Computer Aided Architectural Design Futures Conference – CAAD Futures, Daejeon, Korea. (June 2019): 950-969. >>

- 2017 Vernelle A. A. Noel. "From Costuming and Dancing Sculptures to Architecture: The Corporeal and Computational in Design and Fabrication of Lightweight Mobile Structures," in *Future Trajectories of Computation in Design*. Proceedings of Computer Aided Architectural Design Futures Conference – CAAD Futures, Istanbul, Turkey. (June 2017): 22-41. >>
- 2016 Vernelle A. A. Noel. "Crafting as Inquiry into Computation: Exploring wire-bending in traditional practice and design education," in *Complexity & Simplicity*. Proceedings of the 34th Education and research in Computer Aided Architectural Design in Europe Conference (eCAADe), University of Oulu, Oulu, Finland, (August 2016): 311-320. >>
- 2013 Lujie Chen, Lawrence Sass, Woong Ki Sung, and Vernelle Noel "Surface skeleton generation based on 360-degree profile scan", Proc. SPIE 8790, Optics for Arts, Architecture, and Archaeology IV (May 2013).
- 2021 Vernelle A. A. Noel. "Wire-bending: Not just a craft, but a kind of Carnival," in *Good Relations: Practices and Methods in Unequal and Uncertain Worlds* in 4S2021: Society for the Social Studies of Science. Virtual (Oct. 2021).
- Vernelle A. A. Noel. "Multiple-Making: Skill + Craft Practices + Cognition." in the 2021 American Psychological Association Conference (APA), August 12-14.
- 2019 Vernelle A. A. Noel. "Beyond the Computational: The Social in Wire-Bending in Trinidad & Tobago," in *Innovations, Interruptions, Regenerations* in 4S: Society for the Social Studies of Science, New Orleans, LA. (September 2019).
- Vernelle A. A. Noel. "Here's Looking at you Craft," in *Humanistic Perspectives at Technological Universities: A Symposium*. Georgia Institute of Technology, GA. (April 2019).
- 2018 Vernelle A. A. Noel et. al. "Sense-ation Making Mashup," in *a2ru Emerging Creatives Summit*. Baton Rouge, LA. (February 2018).
- 2017 Vernelle A. A. Noel and Danielle Oprean. "Digital Design and Spatial Comprehension: The visual, corporeal, and tactile in embodied interaction," in *Thinking Within Symposium*. Penn State, PA. (December 2017).
- Vernelle A. A. Noel. "Craft, Computation, and Technology: The Practice of Wire-Bending in Trinidad & Tobago," in *STS (In)Sensibilities* in 4S: Society for the Social Studies of Science, Boston, MA. (September 2017).

Unpublished
conference
presentations

Vernelle A. A. Noel, and R. Allen Kimel. "Material Matters: A model for the design and construction of low-cost, high-performance energy-efficient dwellings in Burkina Faso, West Africa," in *Materials Day 2017*, Penn. State, State College, PA. (October 2017).

Vernelle A. A. Noel. "A Multiple-Making approach to inquiry in traditional craft practices: Wire-bending in Trinidad & Tobago," in *AERA: American Educational Research Association*, San Antonio, Texas. (April 2017).

2015 2015 NSF Maker Summit, hosted by the American Society for Engineering Education (ASEE), and the National Science Foundation (NSF), Washington, DC.

Poster Sessions

2016 Vernelle A. A. Noel. "Immersive Reality, Preservation, and Development: Traditional Dancing Sculptures in the Trinidad Carnival," in *Immersive Reality Symposium*, Penn. State, State College, PA. (November 2016).

Vernelle A. A. Noel and Nasim Motalebi. "Quantified Walk: Design of a Stretch Knit Legging Prototype for Parkinson's Gait Monitoring," in *Penn State Center for Health Organization Transformation (CHOT)*, Penn. State, State College, PA. (September 2016).

Vernelle A. A. Noel. "(Re)conceptualizing craft and technology for Design," in *SCDC Flash Symposium*, Penn. State, State College, PA. (April 2016).

Exhibitions

Curator,
Designer,
Exhibitor

2023 "Design and Making in the Trinidad Carnival: Histories, Re-imaginings, and Speculations of Computational Design Futures." Prince Gilbert Library, Georgia Institute of Technology. Nov. 2022-June 2023. >>

Invited
Exhibitor

"Drawing Codes: Experimental Protocols of Architectural Representation" Houston, Texas. 2023. On display: "Embodied CODE-nition." Invited by Adam Marcus & Andrew Kudless_(Upcoming) >>

2022 "Magical Hackerism" SAVVY Contemporary, Berlin, Germany. September 16-November 6, 2022. On display: "Carnival and Artificial Intelligence." >>

"Mathemalchemy Exhibition" National Academy of Sciences, Washington, DC. January 24-June 13, 2022. Invited by Ingrid Daubechies. On display: "The Boat." >>

Curator,
Designer,
Exhibitor

2021 "Black Arts + Culture: Generative Traditions with AI and Design in Carnival." Permanent Online Gallery and Virtual Exhibition. On display: AI Art, and more. Sept. 2021-present >>

Invited Exhibitor	2021	“Vers un imaginaire numérique.” Montreal Centre de design, Montreal, Canada. September 15-November 7. Invited by Daniel Cardoso Llach and Theodora Vardouli. On display: “Sympoesis” and “Explode.” >>
Exhibitor		“We are (In)Visible.” Caribbean Visual Arts Biennial. Virtual Exhibition. (June 2021)
Invited Exhibitor	2019	“Form and Force,” IASS and Structural Membranes Joint International Conference, Crowne Plaza Barcelona Fira Center. October 6-9. On display: “The Infinite Line: Modular Active-Bending Pavilion.” With Niloofar Nikookar, Jamieson Pye, Jamieson, Phuong Tran, and Sara Laudeman.
Exhibitor	2017	PSU 3D Printing Showcase, Rouse Gallery, Stuckeman Family Building, Penn State, University Park, PA., Nov. 15. On Display: “Computational wire-bending artifacts.”
	2016	Immersive Reality Symposium, HUB-Robeson Center, Penn State, University Park, PA., October 16. On Display: “Immersive Reality, Preservation, and Development: Traditional Dancing Sculptures in the Trinidad Carnival.”

Creative Products/ Artifacts

- 2022 “Vortex” – 4’ tall lightweight structure
- “Masks” Series – Four (4) wire masks
- “Cascade” – 5’ lightweight structure with Sanaz Siyahrood Ahmadzadeh
- “The Sphere” – 6’ diameter lightweight structure
- 2021 “Recursion” – wire-bent artifact
- “The Boat” – wire-bent artifact
- “Sympoesis” – wire bent artifact
- “Explode” – wire-bent artifact
- Generative AI Dancing Sculptures
- 2020 Drawing series – Six (6) drawings
- 2019 “The Infinite Line” Pavilion – 10’ fiber-glass structure, 2019 with Niloofar Nikookar, Jamieson Pye, Jamieson, Phuong Tran, and Sara Laudeman
- “From Dawn to Dusk” Pavilion – 12’ wire-bending structure
- 2017 Corporeal Light paintings
- 2015 “The Sail” Pavilion

Software

- Web-drawing applications
- 2021 “Naladrian”
“Moko Jumbie”

Non-refereed Publications

- Essays
- 2021 Vernelle A. A. Noel. “Thinking-with and making-with [others] for breakthroughs in design.” In *Dialogues in Design Thinking: reconsidering the interdisciplinary design studio experiment in the School of Architecture at Georgia Tech. 2021* by “Kim, J J-Y, ed. (School of Architecture, Georgia Tech, Atlanta).
- Vernelle A. A. Noel. “Why I choose to write a blackout piece?” In *Radical Good Trouble, edited by Barrett Blaker et al. (School of Architecture, Georgia Tech, Atlanta).*
- 2011 Vernelle A. A. Noel. “Caribbean architecture without Caribbean architects,” in *Architecture Caribbean. (2011).*
- 2010 Vernelle A. A. Noel. “The Adalaj Vav in Ahmedabad - Treasure of Delight and Detail,” in *Architecture Caribbean. (2010).*
- Web-published Interviews
- Vernelle A. A. Noel. “Interview with Dutch Architect, Ralf Pasel,” in *Architecture Caribbean. (May 2010).*
- Vernelle A. A. Noel. “Interview with Portuguese Architects, Vasco Correia & Patricia Sousa (Camarim),” in *Architecture Caribbean. (May 2010).*
- Vernelle A. A. Noel. “Interview with Japanese Architect, Daigo Ishii,” in *Architecture Caribbean. (April 2010).*
- Vernelle A. A. Noel. “Interview with Trinidadian Architect, Rudylynn De Four Roberts,” in *Architecture Caribbean. (July 2010).*
- 2009 Vernelle A. A. Noel. “Interview with Brazilian Architect, Arthur Casas,” in *Architecture Caribbean. (November 2009).*
- Vernelle A. A. Noel. “Interview with Trinidadian artist, Jackie Hinkson,” in *Architecture Caribbean. (September 2009).*
- Vernelle A. A. Noel. “Interview with UK Graphic Artist, Nik Ainley,” in *Architecture Caribbean. (September 2009).*

Keynotes and Invited Lectures

Keynotes

- 2022 “Computation, Computing, and the Social” at The University of Toronto, Toronto Geometry ↔ Architecture Workshop. Oct. 21. Invited by Alec Jacobson and Maria Yablonina. >>
- “Craft, Culture and Computing: Grounding our field in the social” at The University of Pennsylvania (UPenn) Precarity Conference. Apr 22-23. >>
- “Grounded Approaches to Design | Equity | Data” at AIA TAP Building Connections Congress 2022. Virtual. Jan. 18-20. >>
- 2021 “The Mathematics of Wire-bending” at Illustrating Math @ Park City Mathematics Institute (PCMI 2021) Summer Program. Invited by Organizing Committee. July 20. >>
- 2020 “Situated Computations as a form of Repair: Craft, Culture, and Computers” at Association for Computer Aided Design in Architecture (ACADIA) 2020 Distributed Proximities conference. Oct. 28.
- 2015 “The Power of Making: Craft, Computation, and Carnival.” TEDx Talk, Port of Spain, Trinidad. >>

Invited Talks

- 2023 “Craft, Computation + Culture.” Presented at the Conferences COMPUTAR, FORMA 23 Lecture Series, Lisboa, Portugal, June 19. Invited by Felipe Coutinho Quaresma.
- 2022 “Craft + Computation: Culture, Design, Cognition” at The Emory Center for Mind, Brain, and Culture (CMBC). Emory University, Atlanta, GA. Nov. 15th. Invited by Dietrich Stout >>
- “The Algorithm of Wire-bending” at Algorithmic Pattern Event. May 31st. Invited by Alex McLean >>
- “Craft and Computation: Grounding our field in the social world” at Media Arts & Technology. University of California, Santa Barbara. Mar. 7th. Invited by Enrica Lovaglio Costello.
- “Situated Computations, AI + Design” at School of Architecture, University of Florida. Gainesville, FL. Invited by Karla Saldana Ochoa. Feb. 10th
- 2021 “Making, Culture, and Technology” at Gray Area Festival. Virtual. Oct. 25th. >>

“Situated Computations, Craft + Technology” at School of Architecture, Massachusetts Institute of Technology. Cambridge, MA. Sept. 23rd.

“Situated Computations, Craft + Technology” at DigitalFUTURES Young Award. July 4.

“Situated Computations + Design: Craft, Culture, and Computers” at Cluster of Excellence Integrative Computational Design and Construction for Architecture (IntCDC), University of Stuttgart, Germany. July 19.

“Making, Culture + Computation” at National Organization of Minority Architecture Students (NOMAS), Washington, DC. June 7.

Presentation and Roundtable on Materiality and Computation at the Lattice.Space Digital.Visual.Material Symposium. Invited by Theodora Vardouli and Daniel Cardoso Llach. May 26.

“Situated Computations + Design” at the Biennial International Conference of the Craft Sciences (BICCS 2021). Invited by Tina Westerlund. May 5.

“Situated Computations: Craft + Culture + Design” at Dalhousie University’s Faculty of Architecture and Planning, Canada. Robert H. Winters Lecture Series. Invited by James Forren & Lisa Berglund. Feb. 24.

“Cultural Heritage + New Technologies: Design, Tools, and AI” at AI 4 Afrika: Paradoxes, Promises and Paradigms New. The Center for African Studies, University of Florida. Invited by Osubi Craig. Jan. 21.

“Art++; Culture++; Code++;” at Carnegie Mellon University’s STUDIO for Creative Inquiry. Art && Code: Homemade Symposium. Invited by Golan Levin. Jan. 15. >>

2020 “Situated Computations: Software-based practices + The Social” at Carnegie Mellon University’s School of Architecture. The Digital Mundane Computational Design Lecture Series. Invited by Daniel Cardoso Llach. Dec. 03.

“Situated Computations: Culture, Computers, and Craft in Design and Architecture.” GVU Center, Georgia Institute of Technology. Oct. 01.

“Cultural Preservation + Heritage Conservation through Computation,” Texas Tech. University. Invited by Mahyar Hadighi. Sept. 29.

“Situated Computations: Design, equity and social justice systems” in *AI, Art and Social Justice: Understanding and Addressing Bias, Representation and Inclusive Practices in the Development of AI Systems* at ACM SIGGRAPH 2020. Invited by Andres Burbano & Valencia James. Aug. 2020.

- “Making, Computation, and the Social,” Museum of Design Atlanta (MODA). Jun. 23.
- “Making, Computation & Automation”. Mc Gill University, School of Architecture. Montreal, Canada. Mar. 21.
- “Computational Making”. University of New Mexico, School of Architecture & Planning. Albuquerque, New Mexico. US. Feb. 21.
- 2019 “Design Computation + Craft + Carnival.” Invited by Andrew Chin. Florida Agricultural and Mechanical University (FAMU), School of Architecture & Engineering Technology. Feb. 20.
- 2018 “Wire-bending & Design in the Trinidad Carnival.” Invited by Scott Marble, Julie Kim, Athanassios Economou. Georgia Tech Institute (GATECH) FOCUS Fellow, School of Architecture. Jan. 10.
- 2017 “Computational Design + Craft + Culture.” Howard University, Department of Architecture. Apr. 6.
- “Reinterpreting Cultural Design Practices through Technology: Wire-bending and Design in the Trinidad Carnival.” Africana Research Center, Penn State University.
- “Art and Life: The Power of Craft.” Invited by Christopher Parks Staley. Penn State, School of Visual Arts.
- “Material Matters: A model for the design and construction of low-cost, high-performance energy-efficient dwellings in Burkina Faso, West Africa.” 2iE West African Speakers Series, Penn State.
- 2016 “Computation, Wire-Bending, and Craft”: Made in the Machine course. Invited by Arlene Ducao. New York University (NYU).
- “Worldmaking and Craft”: Inquiry into Design Computing course. Invited by José Pinto Duarte, Department of Architecture, Penn State University.
- “Design and Computation in Trinidad Carnival,” Carnegie Mellon University, School of Architecture, Pittsburgh, PA. Invited by Daniel Cardoso Llach.

Grants

- 2022 Executive Vice President for Research (EVPR) Seed Grant Award. “Computational Craft Community Team Building.” **Awarded \$50,000.** Collaborators: Anne Sullivan (PI), Noura Howell (Co-PI), Sabetta Matsumoto (Co-PI), and Michael Nitsche (Co-PI).
- 2021 2021 Graham Foundation Grant for Advanced Studies in the Fine Arts Award (nearly 700 applicants). “Design and Making in the Trinidad Carnival: Histories, Re-imaginings, and Speculations of Computational Design Futures.” **Awarded \$5,000.** (May 26) >>
- 2020 Mozilla Foundation Creative Media Awards Grant. “Black Arts + Culture: Generative Traditions with AI and Design in Carnival.” **Awarded \$29,982.** Collaborators: Nettrice Gaskins and Valencia James.
- 2018 Global Programs Graduate Student Travel Grant, Penn State University. **Awarded \$750.**
- 2016 “Material Matters: A model for the design and construction of low-cost, high-performance energy-efficient shelters in Burkina Faso, West Africa” w/ Robert A. Kimel. MRI Humanitarian Materials Initiative Award. **Awarded \$10,000.**
- 2015 “Dancing Sculptures: Exploring the Synthesis of Craft, Computation & Technology in Design and Fabrication.” National Institute of Higher Education, Research, Science and Technology (NIHERST) Trinidad & Tobago, Prime Minister's Awards for Scientific Ingenuity. **Awarded \$1,150.**
- “Architecture [FOR] + [OF/ FROM] + [BY] the Body: A Photojournalism project on design and dancing sculptures in the Trinidad Carnival.” Penn. State University, Pohland Graduate Student Fellowship Award. **Awarded \$2,500.**
- “TraDigital Craft: Exploring the integration of computation and digital in traditional craft practices.” Penn. State University, SCDC Student Research Grant Award. **Awarded \$572.**
- 2014 “Cultural Design Practices, Computation, and Design Education: Wire Bending in Trinidad & Tobago.” Africana Research Center Award. Penn State University. **Awarded \$2,000.**
- “Trinidad Carnival: Improving Design through Computation and Digital Technology.” Government of the Republic of Trinidad & Tobago, Ideas2Innovation Award (i2i). **Awarded \$15,000.**
- 2012 “Dancing Sculptures: Design and engineering practices in Trinidadian wire bending.” Rosalia Ennis Research Award. MIT Department of Architecture. **Awarded \$1,250.**

Grant Applications (not funded)

- 2020 The SOM Foundation Research Prize 2020: Examining Social Justice in Urban Contexts. “Race, Gender + Design Justice: A biometric, spatial study of the relationship between race, gender, and design in Urban Contexts.” w/ Arlene Ducao. \$40,000.
- 2020 Advancing Racial Justice Through Inclusion, Diversity, Equity, and Access at the University of Florida. “Space + Race: A neurophysiological spatial study of Black students’ experiences on the UF Campus.” \$68,821.
- 2017 2018 Graduate Women in Science (GWIS) Fellowship. “Evaluating the role of computational approaches to craft in reviving knowledge in the dying craft of wire-bending and spurring interest in STEM.” \$8,020.
- Graduate Student International Research Award. “Computational Crafting: The Bailey-Derek Grammar and wire-bending in Trinidad & Tobago” \$5,000.
- Center for Craft Materials-Based Research Grant. “Crafting Materials through Science: Architecture at the Intersection of Design Computation and Materials Science.” Role: PI. Collaborators: R. Allen Kimel, and Benay Gursoy Toykoc. \$14,445.

Doctoral Advising

- Principal 2027 Sanaz Siyahrood Ahmadzadeh, “Artificial Intelligence and Architecture” (working expected title). Georgia Institute of Technology, School of Architecture, Ph.D. in Design Computation. Atlanta, GA.
- Co-Advisor 2024 Hayri Dortdivanlioglu, “A Woven Theory of Architecture: A Counter-canonical expected reading of Vitruvius.” Georgia Institute of Technology, School of Architecture, Ph.D. in History Theory Criticism. Atlanta, GA.

Masters Advising

- Committee 2022 Jiaying Wu, “The nonexistent chair series: Implementing AI into design ideation.” Member Georgia Institute of Technology, School of Industrial Design. Master of Industrial and Product Design. Atlanta, GA.
- 2019 Niloofar Nikookar, “Design through Digital Making: A Human-System Collaboration Framework.” Georgia Institute of Technology, School of Architecture. Master of Science in Architecture. Atlanta, GA.

Independent Studio 2020 Amy Stone, "The Role of Architecture in Pandemics: Spatial Strategies for Long Term Care Facilities in Response To COVID-19." D+R Studio. Georgia Institute of Technology, School of Architecture. Master of Architecture. Atlanta, GA

Courses

Assistant Professor GT
S 2023 - Computation + Repair in Design (CS 4803/8803) (UG/G)
- Senior Interdisciplinary Studio w/ Public Policy
F 2022 - Advanced Architectural Design Studio (ARCH 6036) (G)
S 2022 - Senior Interdisciplinary Studio w/ Aerospace Engineering (ARCH 4017) >>
- Research Seminar in Craft and computation (UG/G)
F 2021 - Artificial Intelligence & Design (UG/G)

Assistant Professor UF
S 2020 - Senior Design Studio (*Craft, Tectonics + Computation*)
F 2020 - Junior Design Studio (UG)
- Introduction to Digital Architecture (UG)

Visiting Assistant Professor GT
S 2020 - Pre-College Architecture Summer Program
S 2020 - Senior Interdisciplinary Design Studio w/ Computational Media. >>
- Computation and Repair in Design (ARCH 8833/4433) (G/UG).
F 2019 - Sophomore Design Studio (ARCH 2854) (UG). >>
- Introduction to Design and the Built Environment (ARCH 1060) (UG).
- Independent Study on Active-Bending Structures (ARCH 8903) (G).
S 2019 - Sophomore Design Studio (ARCH 2854) (UG) w/ Keith Kaseman.
- Computation and Craft: Wire-bending Theory and Applications (ARCH 8833/4433) (G/UG). >>
F 2018 - Freshman Design Studio (ARCH 1854) (UG) w/ Michelle Rinehart.
- Introduction to Design and the Built Environment (ARCH 1060) (UG).

Instructor PSU
2016-18 Freshman Design Studio (ARCH 121; ARCH 122) (UG) w/ Cathy Braasch.

Visiting Fellow SUTD	S 2014	Digital Design & Fabrication (UG) w/ Stylianos Dritsas and Bige Tunçer.
	IAP 2014	Computational Construction (UG) w/ Skylar Tibbits.
	F 2013	Introduction to Design Computation (UG) w/ Sawako Kaijima.
Teaching Assistant MIT	S 2013	Introduction to Visual Arts (UG) w/ Gediminas Urbonas.

Workshops

Instructor	2021	“Embodied Practices + Skill + Cognition.” Cluster of Excellence Integrative Computational Design and Construction for Architecture (IntCDC), University of Stuttgart, Germany. Dec 13.
	2020	“Black Arts + Culture: Generative Traditions with AI and Design in Carnival.” July 15 & 17. Co-organized with Dr. Nettrice Gaskins and Valencia James.
	2019	Georgia Institute of Technology, Atlanta, GA, “Computational Approaches to Wire-bending.” Jan – April.
	2017	Bishops Anstey Trinity College East (BATCE), Trincity, Trinidad & Tobago. “Bend It!” Two-day Workshop. Dec 21-22.
		The Pennsylvania State University, University Park, PA. “Computational Approaches to Wire-Bending.” Two-day Workshop. Dec 9-10.
		The Pennsylvania State University, University Park, PA. “Light It Up!” Four-day Workshop. Jan 21-22, 28-29. Co-organizers: Benay Gursoy Toykoc, and Julio Cesar Diarte.
	2014	The Pennsylvania State University, University Park, PA. “From Dark Knight to Design Computation: Tools to Technologies.” Two-day Workshop.

Service in Professional Organizations

Leadership	2022-	Association for Computer-Aided Design in Architecture (ACADIA)
		- Elected Board Member, 2020 – present
		- Elected Membership Officer, 2022 – present
		- Conference steering committee, 2022 – present
		- Member of Scholarship Committee, 2022 - present
		- Member of Ethics Committee, 2022 – present

Reviewer 2016 National Science Foundation (NSF) Proposals on Innovative Technology Experiences for Students and Teachers (ITEST)

Service in Professional Conferences

Session Chair 2022 “Disruptive Modes of Practice and Pedagogy” in “Realignments: Toward Critical Computation” Association for Computer Aided Design in Architecture Conference (ACADIA 2022). Oct. 27-29. >>

Conference Co-Chair 2021 “Realignments: Toward Critical Computation” Association for Computer Aided Design in Architecture Conference (ACADIA 2021). Virtual (Nov. 3-6, 2021). Sixteen invited keynotes, 13 workshops, 1124 registered attendees.

Session Organizer & Chair **Vernelle A. A. Noel** and Hayri Dortdivanlioglu. “Craft, Computers, and Conquest: Renegotiating relations” in *Good Relations: Practices and Methods in Unequal and Uncertain Worlds* in 4S2021: Society for the Social Studies of Science. Virtual (Oct. 2021).

Yana Boeva and **Vernelle A. A. Noel**. “Critical Computational Relations of Design, Architecture and the Built Environment” in *Good Relations: Practices and Methods in Unequal and Uncertain Worlds* in 4S2021: Society for the Social Studies of Science. Virtual (Oct. 2021).

Hayri Dortdivanlioglu and **Vernelle A. A. Noel**. “Interrupted Processes: Technology, Creativity and Design” in *Good Relations: Practices and Methods in Unequal and Uncertain Worlds* in 4S2021: Society for the Social Studies of Science. Virtual (Oct. 2021).

2019 “No paper, No pencil, No tape measure: Situated Craft Practices, Computation, and Automation” in *Innovations, Interruptions, Regenerations* in 4S: Society for the Social Studies of Science, New Orleans, LA. (September 2019).

Session Chair 2019 “Performative Structures” in Simulation for Architecture and Urban Design (SimAUD) 2019. Georgia Institute of Technology, Atlanta. >>

Service in Journals & Conference Proceedings

Reviewer 2023 - ACADIA 2023
- Technology Architecture + Design (TAD) Journal

2022 - ACADIA 2022
- ConCave Ph.D. Symposium 2022

Journal peer review 2021 - Design and Culture
- Digital Creativity

- Conference peer review
- International Journal of Architectural Computing (IJAC)
 - 2021 - ACADIA 2021
- Creativity & Cognition 2021
 - 2020 International Journal of Architectural Computing (IJAC)
 - 2019 - ConCave Ph.D. Symposium 2020 - Divergence
 - 2017 Leonardo
 - Occasional Paper Series
 - 2016 SIGGRAPH Art Papers
 - 2016 IEEE VIS Arts Program

Invited Reviewer

- 2023 University of Michigan, Taubman College, Department of Architecture. Guest critic for Master of Architecture Students final review, invited by Jose Sanchez. Apr. 20.
- 2022 MIT, School of Architecture + Planning. Cambridge, MA. Final Thesis Reviews. Invited by Sheila Kennedy. May 11-12.
- Carnegie Mellon University (CMU), School of Architecture. Cambridge, MA. Pre-Thesis Reviews for Master of Science in Computational Design. Invited by Daragh Byrne. May 6.
- Carnegie Mellon University (CMU), School of Architecture. Cambridge, MA. Final Thesis Reviews for Master of Science in Computational Design. Invited by Daniel Cardoso Llach. May 3.
- University of Stuttgart, IntCDC. Stuttgart, Germany. Final Review for Behavioral Fabrication. Invited by Tobias Schwinn. Feb. 10.
- University of Stuttgart, IntCDC. Stuttgart, Germany. Final Review for Bio-Materials Studio. Invited by Hanaa Dahy and Jan Petrs. Feb. 10.
- 2021 University of Stuttgart, IntCDC. Stuttgart, Germany. Final Review for Masters ITECH. Invited by Achim Menges. Oct. 25-26.
- MIT, School of Architecture. Cambridge, MA. Final Review for SMArchS Design Computation. Invited by Terry Knight. May 27.

- 2020 Mc Gill University, School of Architecture. Montreal, Canada. Final Review for M.Arch. Invited by Martin Bressani. Dec. 17 & 18.
- University of Southern California (USC) School of Architecture, CA. Final Review for Advanced Graduate Studio. Invited by Alvin Huang. Dec. 04.
- Ohio State University, School of Architecture, OH. Third Year Final Review. Invited by Jeffrey Kipnis. Nov. 25.
- Georgia Tech, School of Architecture, GA. Final Review for Sophomore Architecture Design Studio, invited by Lars Spuybroek, Nov. 20.
- Georgia Tech, School of Architecture, GA. Final Review for Master of Architecture Studio, invited by Julie Kim, Nov. 20.
- University of Michigan, School of Art & Design, MI. Mid-Review for Graduate Design students. Invited by Audrey Bennet. Oct. 19.
- Penn State University, School of Architecture, PA. Final Review for First Year Studio, invited by Cathy Braasch, April 24.
- 2019 Carnegie Mellon University, School of Architecture, Pittsburgh, PA. Final Review for Masters in Design Computation Pre-Thesis presentations, invited by Daniel Cardoso Llach, Dec 12.
- Clemson University, School of Architecture, South Carolina. First Project Final Review for Sophomore Studio, invited by Joseph Choma, Mar 8.
- 2018 Carnegie Mellon University, School of Architecture, Pittsburgh, PA. Final Review for Masters in Design Computation Pre-Thesis presentations, invited by Daniel Cardoso Llach, May 10.
- New York University, Tandon School of Engineering, NY. Final Review for the “Ideation & Prototyping Studio” invited by Arlene Ducao, May 4.
- Georgia Institute of Technology, School of Architecture, GA. Final Review for the “Concrete Change: Structure, Adaptation, and Urbanism in the Near and Not-So-Near Futures, D+R STUDIO” and “Multi-Performance Thickening Studio.” Invited by Scott Marble and Julie Kim, Apr 20 - 21.

Public and Community Service

- 2023 Idle Crimes Heavy Work (ICHW), Atlanta, Georgia.
- 2020 Selection Committee, *Atlanta Children Eternal Flame Sculpture*. City of Atlanta - Mayor’s Office of Cultural Affairs (2020).

Departmental Service

GT	2022-	- Elected member of Faculty Advisory Committee
	2022	- Justice, Equity, Diversity, Inclusion Committee - Chair Search Committee - Graduate Admissions Committee
	2021	- Equity, Justice, Inclusion Committee
UF	2020	- Artificial Intelligence Working Group, College of Design, Construction, Planning - Graduate Admissions Committee - Director Search Committee
GT	2019	- BS Architecture and Computing Degree Task Force, School of Architecture - Graduate Admissions Committee, School of Architecture
Penn State	2017-18	GRID Symposium 2017, 2018, College of Arts & Architecture, University Park, PA.
	2016	Moderator, SCDC Open House 2016
	2016-18	Officer, Graduate Researchers & Innovative Designers (GRID)
	2015	Faculty Search Committee

Membership in professional and learned societies

	2022-	National Organization of Minority Architects (NOMA)
	2022-	Heritage Crafts Association (HCA)
	2022-	International Association for Structures & Architecture (IASA)
	2018-	American Anthropological Association (AAA)
	2018-	The Design Research Society (DRS)
	2017-	Graduate Women In Science (GWIS)
	2017-	Caribbean Studies Association (CSA)
	2016-	The Latin American Studies Association (LASA)
	2016-	The American Educational Research Association (AERA)
	2016-	The Society for Social Studies of Science (4S)
	2016-18	The American Craft Council
	2015-	Association for Computing Machinery (ACM)
	2015-	The International Association for Shell and Spatial Structures (IASS)
	2013-	Association for Computer Aided Design in Architecture (ACADIA)
	2013-	The Design Society
	2011-2015	Trinidad & Tobago Institute of Architects (TTIA)
	2007-12	American Institute of Architects (AIA)

2010-12 Trinidad & Tobago Society of Planners (TTSP)

Continuing Education

2022-23 Faculty Writing Scholars Program, Georgia Tech. >>

2022 - Futures In Socially-Directed Science & Technology: Sustainable Materials & Manufacturing @ MIT. Invited by Dr. Christine Ortiz. Feb. 3. >>
- Intro. To Cognitive Science Course @ GT by Dr. Sashank Varma. Jan.-Apr

2021 - KUKA Robotics Programming (*Augsburg, Germany*)
- ACADIA 2021 Workshop: Building Web-Based Drawing Instruments.
- What is AI? @ Univ. of Florida
- PY4AI @ Univ. of Florida

2020 - UNLEARNING: A workshop organized by Urban Humanities Working Group.
- ACADIA 2020 Workshop: TouchDesigner. Oct. 24 & 25.

2019 - Science, Technology and Society @ GT by Robert Rosenberger. Aug-Dec.
- Shape Machine Symposium @ GT
- STS Studio @ GT by Nassim Parvin. Aug-Dec.
- Implicit Bias Workshop for Faculty Development @ GT

2018 Podcasting Fellowship. Jun – Aug. 2018.

Other Interests

Art + Illustrations; Martial Arts – Taekwondo (Black Belt), Jujitsu, Judo, Kali, Aikido; Photography; Podcasting; Culinary enthusiast.