

EXPERIENCE

City University of New York

New York, NY

University Dean for Technology and Computer & Information Sciences

9/2024 - CURRENT

- More soon!

Senior Director of STEM Education Programs

3/2023 - 8/2024

Director of STEM Education Programs

10/2019-2/2023

- Led a multi-year, \$17 million public-private change strategic initiative to integrate computing into teacher preparation programs preparing over 10,000 teachers annually. <https://cuny.edu/computinged>
- Allocated over \$4 million annually for strategic planning, academic research, curriculum design, professional learning, and scholarships across 15 campuses through RFPs or program requirements aligned with strategic theories of change.
- Managed a team of 10+ staff and dozens of partners to design, develop, deliver and evaluate over 120 hours of hybrid professional development on computing for more than 330 diverse faculty.
- Developed relationships with private foundations, corporations, public agencies, and nonprofits to fund and provide capacity for development of innovative STEM and computing curriculum.
- Collaborated with researchers to run many small and large scale studies that investigate systemic inequities in STEM education, faculty and student learning, organizational problems of practice, and change management.
- Supported agenda and resource development for and presenting at convenings of college leaders.
- Presenting publicly about CUNY STEM education strategy, progress, findings, and needs.

New York State Department of Education

Remote

Computer Science Subject Matter Expert

9/2019-CURRENT

- Provide content area expertise to inform the writing of new NYS Computer Science Teacher Content Speciality Test core competencies and test questions.
- Guide questioning and feedback from statewide stakeholders to ensure alignment between ground truths, rapidly changing CS field, test development, and an inclusive design process.

New York City Department of Education

New York, NY

Senior Director of Computer Science Academics

9/2016-10/2019

Associate Director of Computer Science Academics

8/2015-8/2016

- Led team responsible for computer science curriculum, professional development, school support across grades K-12 and all NYC districts reaching 2,300 teachers at over 800 schools (\$4 million annual budget).
- Led the design, development, and implementation of the CS4All Blueprint, an academic and implementation guide for NYC schools, through a community co-design model that engages teachers, school leaders, researchers, and industry. (<http://blueprint.cs4all.nyc>)
- Investigated and implemented equitable and rigorous Advanced Principles CS Principles curriculum, professional development and coaching as co-principal investigator on two National Science Foundation computer science grants (#1837280, #1837687).
- Built partnerships with universities, non-profit organizations, and corporations to accomplish ambitious goals like building custom technology for teachers and hosting the first ever hackathon at City Hall.

- Served as an advisor and writer on New York State Education Department Computer Science and Digital Literacy Standards.
- Worked closely with Executive Director and Communications Director of CS4All, high level DOE and City Hall leaders to represent CS4All to press and current and potential funders.

Flatiron School

Teaching Fellow

New York, NY

5/2015-11/2015

Taught fundamentals of full stack web development during a summer intensive for multiple cohorts of teens that culminated in students deploying functional web applications.

New York City Department of Education

Software Teaching Intern

New York, NY

3/2014-6/2015

Supported teacher implementing pilot software engineering curriculum in the classroom.

Data Analysis Fellow

6/2014-12/2014

Cleaned, analyzed and reported on the massive multi-year annual school survey of all students, parents, and teachers as well as pilot of teacher evaluation survey taken by students.

TD Bank, N.A.

AVP, Compliance Analytics

Cherry Hill, NJ

7/2012-8/2013

Built consumer compliance analytics per new rules from the Consumer Financial Protection Bureau.

Teach on the Beach

Co-founder & Executive Director

New York, NY & Busua, Ghana

10/2009-10/2013

- Co-founded organization providing free educational programs to rural Ghanaian children.
- Generated over \$200k in revenue and over 30k volunteer hours through service learning programs.
- Established programmatic and volunteer engagement operations in the US and Ghana.
- Hired and trained Ghanaian staff to lead programs, run facilities, and local and international partners

Datran Media/Pulsepoint

Product Manager

New York, NY

5/2005-4/2009

Managed roadmap for \$96 million responsive ad serving systems and led team of product analysts.

JOURNAL ARTICLES

Vogel, S., Yadav, A., Phelps, D., & Patel, A. (2024). Entry Points for Integrating Computing and Tech into Teacher Education: Addressing Problems and Opportunities with the EnCITE Framework. *Journal of Technology and Teacher Education*. <https://www.learntechlib.org/p/223851/>

Azeka, S. & Patel, A. & Kanamaru, K. (2022). Building a school data portal using open data: A description of the user research & development process. *Heliyon*. <https://doi.org/10.1016/j.heliyon.2022.e10517>

OTHER PUBLICATIONS

Yuan, T., & Patel, A. (2022). "If Young Children Can Code, Why Can't We Try?": Computational Storytelling in Early Childhood Teacher Education. *Childhood Education*, 98(6), 56–61. <https://doi.org/10.1080/00094056.2022.2144612>

PRESENTATIONS

Phelps, D., Santo, R., Vogel, S., Patel, A. & Angevine, C. (2024, April). *Institutionalizing Capacity: Problems of Practice Encountered in Scaling Computing-Integrated Teacher Education* at the Annual Meeting of the American Educational Researcher Association, Philadelphia, PA. <http://tinyurl.com/yvxxvg7t>

Ocak, C., Yadav, A. & Patel, A. (2022, April). *Analyzing Teacher Education Faculty's Computational Thinking Perspectives for Equitable Computer Science Education* at the Annual Meeting of the American Educational Researcher Association, San Diego, CA. <https://doi.org/10.3102/1892343>

Patel, A. (2021, April). *Introducing Preservice Teachers to Computational Thinking at Scale*. Paper presented at the Annual Meeting of the American Educational Researcher Association, Virtual. <https://doi.org/10.3102/1684703>

TALKS/WRITING

- 6/2023, Panelist. Generative AI in the Context of NYC's Education Landscape, featuring Dr. Jeremy Roschelle. Robin Hood Learning + Technology Fund. Virtual.
- 11/2022, Panelist. [Expanding on CS4All: Bolstering Computing Education in NYC's Schools](#). Center for Urban Future. New York, NY.
- 3/2022, Speaker. *Beyond Test Scores: Liberating Open Data About Schools*. BetaNYC School of Data. New York, NY.
- 1/2022, Panelist. *Teacher Education for Computational Thinking*. Digital Promise. Virtual.
- 8/2021, Speaker. *Scientist-in-Residence Summer Institute*. New York Academy of Sciences. Virtual.
- 5/2020, Panelist. *Committee on Enhancing Science and Engineering in Prekindergarten through Fifth Grades*. National Academy for Sciences, Engineering, and Medicine. Virtual.
- 3/2020, Speaker. *Computer Science x Civics - NYC DOE's CS4All Hack League*. BetaNYC School of Data. New York, NY.
- 3/2020, Guest. [createCanvas Podcast on Creative Computing in NYC Public Schools](#). Processing Foundation. New York, NY
- 1/2020, Panelist. *Data Science for High School Computer Science*. New York Hall of Science, Cornell Tech, and National Science Foundation. New York, NY.
- 1/2020, Author. *Equitable Implementation of Computer Science Education* on [Cadre DRK12 Community Voices Blog](#).
- 12/2019, Keynote Speaker. Creative Computing Fest. Community event hosted by New York University and supported by the Processing Foundation. New York, NY.
- 7/2019, Panelist. *Forum on Connecting Research, Policy, & Practice*. NYC Department of Education and Regional Educational Laboratory Northeast & Islands. New York, NY.
- 4/2019, Speaker. *NYC Men Teach Colloquium - Computational Thinking for Educators*. City University of New York Office of Academic Affairs and Brooklyn College. New York, NY.
- 10/2017, Speaker. *Computer Science for All Blueprint*. Mozilla Foundation's Mozfest. London, UK.
- 8/2016, Speaker. *Introducing the NYC Computer Science for All Blueprint*. To Code and Beyond, Computer Science Teachers Association and Cornell Tech. New York, NY.
- 11/2016, Speaker. *Learning to Teach*. Processing Foundation and School for Poetic Computation. New York, NY.

VOLUNTEER ACTIVITIES

Marcy Lab School

Board Chair & Secretary

Brooklyn, NY

11/2021-1/2024

Founding Board Member

4/2019-10/2021

Led transition of board from a founding to a scaling board by recruiting new directors to fill gaps, developing governance infrastructure, and forming committees to increase capacity and oversight. Supported strategic planning to meet the long term goal of tapping into public funding sources.

New York City Recovery Data Partnership

New York, NY

Advisor

7/2020-4/2021

Advised New York City Mayor's Office of Data Analytics on oversight of requests by government agencies to utilize data shared with the City by community, non-profit, and private organizations to aid in COVID-19 response and recovery efforts.

EDUCATION

New York University

New York, NY

Tisch School of the Arts, Interactive Telecommunications Program
Master of Professional Studies

9/2013-5/2015

Leonard N. Stern School of Business

8/2001-5/2005

Bachelor of Science: Finance & Marketing

AWARDS & PRESS

- 2017, Mozilla Open Leader. Twelve Week Fellowship: CS4All Blueprint (<http://t.ly/620Ex>)
- 2014, NY1's Connect A Million Minds: Daft Junk + NYC Parks. Workshop on renewable energy and recycled materials for kids.
- 2014, Education Pioneers Graduate Fellowship
- 2013-15, Department Fellowship. New York University, Tisch School of the Arts
- 2013, NYU Prototyping Fund Grant. Built an interactive, teaching chess board.
- 2012, Semi-Finalist, NYU Social Venture Competition. Business model of *Teach on the Beach*

EXPERTISE

- Programming: Python (Flask and Pandas), Javascript (jQuery, p5.js, vanilla), PostgreSQL, Elasticsearch, Model-View-Controller, Git/Github, Amazon Web Services
- Software: Linux/Unix, Microsoft Office Suite, Google Drive and extensions, Creative Suite
- Hardware: Arduino, Raspberry Pi, Microbit, Circuit prototyping, Imaging and Projection, Solar