EDUCATION

University of Chicago

Jul 2022 - Present

Doctor of Philosophy, Computer Science Specialization: Computer Science Education

University of Arizona

Aug 2018 - Dec 2021

Bachelor of Science, Computer Science Bachelor of Arts, Psychology Minor, Statistics & Data Science

RESEARCH EXPERIENCE

Graduate Research Assistant

UChicago CANON Lab

Jul 2022 - Present

- Exploring using generative AI to provide personalized, culturally competent, and academically supportive CS learning experiences for young learners at scale with an emphasis on equity and inclusion for underrepresented populations.
- Advisor: Diana Franklin

Programming & Research Intern

Tectonicus Constructs LLC.

Oct 2021 - May 2022

• Examined stochastic solvers to devise new methods of upscaling and operating Rhino Grasshopper, a parametric 3D modeling tool, in cloud services.

Research Intern

PENN Think Tanks and Civil Society Program

Aug 2021 - Dec 2021

- Studied the influence of technology on different education systems to propose change management plans for the governments, policymakers, and think tanks worldwide.
- Advisor: James G. McGann

Undergraduate Student Researcher

UArizona Vertically Integrated Projects Program

Sep 2020 - Dec 2021

- Designed teachable agent behaviors, and developed constructive feedback systems that support embodied mathematics learning experiences for middle school students.
- Advisor: Winslow Burleson

UArizona Compositional Systems Lab

Jan 2021 - Aug 2021

- Developed vehicle-independent API for a Python package that supports real-time CAN (Controller Area Network) data logging, analysis and visualization
- Advisor: Jonathan Sprinkle

PUBLICATIONS

- [1] **Tran, M.**, Killen, H., Palmer, J., Weintrop, D., & Franklin, D. (2024, March). *Harmonizing Scratch Encore: Scaffolding K-8 Teachers in Customizing Culturally Responsive Computing Materials*. In Proceedings of the 55th ACM Technical Symposium on Computer Science Education V. 1 (pp. 1335-1341).
- [2] **Tran, M.** (2023, August). Prompt Engineering for Large Language Models to Support K-8 Computer Science Teachers in Creating Culturally Responsive Projects. In Proceedings of the 2023 ACM Conference on International Computing Education Research-Volume 2 (pp. 110-112).
- [3] Bhadani, R., Bunting, M., Nice, M., **Tran, N. M.**, Elmadani, S., Work, D., & Sprinkle, J. (2022, May). Strym: A python package for real-time can data logging, analysis and visualization to work with usb-can interface. In 2022 2nd Workshop on Data-Driven and Intelligent Cyber-Physical Systems for Smart Cities (DI-CPS) (pp. 14-23). IEEE.

Honors & Awards	UChicago Division of Physical Sciences Fellowship UChicago Crerar Fellowship UArizona Global Wildcat Award Lund Wolfe Computer Science Scholarship hACCESS Best Fit Hack Winner	2022 - 2028 2022 - 2023 2018 - 2022 Aug 2021 Aug 2021
Work Experience	Lab Intern UArizona Healthcare Technology Innovation Lab (SensorLab)	May 2021 - Oct 2021
	Electronic Test Technician UArizona Elementary Experimental Particle Physics Group	Nov 2019 - Jan 2021
	Web Developer and Designer Arizona Student Unions	Apr 2019 - Sep 2020
TEACHING EXPERIENCE	University of Chicago Teaching Assistant: Inclusive Technology	Jan 2024 - Mar 2024
	Our Lady of La Vang Tucson Vietnamese Language Teacher	Aug 2019 - May 2022
	University of Arizona Teaching Assistant: Object-Oriented Programming and Design	Aug 2020 - Dec 2021
	Ironwood Ridge High School Mathematics Tutor: Algebra, Arithmetic, Geometry, Pre-Calculus	Jan 2020 - May 2020
SELECT SERVICE	SIGCSE Technical Symposium on Computer Science Education Reviewer: Poster $Track$	2023
	UChicago Graduate Recruitment Initiative Team Womens' Team Leader Computer Science Recruitment Cluster Representatives	2022-2023 2023-2024
	UArizona Women in STEM Mentor	2019-2020