

Emily Chang

✉ emilychang@uchicago.edu | 🏠 ec5ug.github.io | 🌐 ec5ug | in emily-chang-ttic

Education

Toyota Technological Institute at Chicago (TTIC), PhD in Computer Science 2031

2026 NSF GRFP Fellow

Advised by Dr. Karen Livescu

University of Virginia (UVA), Bachelor of Science in Computer Science, GPA: 3.98 2025

Minor in Applied Mathematics

Attended the 2024 Grace Hopper Conference on a trip fully-sponsored by Capital One

Industry Experience

CAPITAL ONE, ASSOCIATE SOFTWARE ENGINEERING INTERN

Jun 2024 - Aug 2024

- Achieved significant cost savings by migrating two credit card alerts from third-party platforms to company-run software
- Implemented unit, local, quality assurance, and end-to-end testing in Jest, AWS Kinesis Data Streams, and DynamoDB to ensure that the 21,000 people who receive these credit card alerts each day continue to do so post-code migration

Publications

- **Chang E**, Bafna N. [ChiKhaPo: A Large-Scale Multilingual Benchmark for Evaluating Lexical Comprehension and Generation in Large Language Models](#), *Association for Computational Linguistics*, 2026.
- **Chang E**, Basit N. [How many words does it take to understand a low-resource language](#), *NAACL Student Research Workshop*, 2025.
- Bafna N, **Chang E**, et al. [DialUp! Modeling the Language Continuum by Adapting Models to Dialects and Dialects to Models](#), *Association for Computational Linguistics*, 2025.
- **Chang E**, [Broadband Expansion: Disseminating Policy Lessons on COVID-19](#), *United Nation's Forum on Science, Technology, and Innovation*, 2023.
- Martorana A, **Chang E**, Hibshi H, Cuevas A, [Investigating the Experiences of Female CTF Players](#), *Workshop on Security Information Workers*, 2023.
- **Chang E**, Zhang K, Paczkowski M, Kohler S, Ribeiro M, [Association of temporary Environmental Protection Agency regulation suspension with industrial economic viability and local air quality in California, United States](#), *Environmental Sciences Europe*, 2021.
- Liu Q, Liu W, Sha D, Kumar S, **Chang E**, et al. [An Environmental Data Collection for COVID-19 Pandemic Research](#), *Data*, 2020.

Awards

National Science Foundation Graduate Research Fellowship	Apr 2026
Society of Women Engineers: Liebherr Mining (Senior) Scholarship	May 2024
Best Connection/Connectivity Hack at the University of Virginia's Hack the Map competition	Feb 2024
UVA Engineering's Isabella Merrick Sampson Scholarship	Jun 2023
Gordon C. Burris Parents Committee Scholarship	May 2023
Virginia Space Grant Consortium's Undergraduate Research Scholarship	Apr 2023
UVA Engineering's Barbara B. Darden Endowed Scholarship	Jun 2022
Virginia Broadband Association Future Leader's Scholarship	Jun 2022
Virginia Space Grant Consortium STEM Bridge Scholarship	Apr 2022
Jefferson Scholars Foundation's Lettie Pate Whitehead Scholarship	Sep 2021
American Groundwater Trust Baroid Scholarship	Aug 2021
Exceptional voluntary service as a US Department of State Youth Program Alumni Outreach Ambassador	Aug 2020

Teaching Experience

TOYOTA TECHNOLOGICAL INSTITUTE JAPAN, GUEST LECTURER

Sep 2026

- Will instruct graduate students on the psychometric framework Item Response Theory and its applications to language model evaluation

UVA'S DEPARTMENT OF COMPUTER SCIENCE, TEACHING ASSISTANT

Jan 2024 - Present

- Hosted office hours and graded assignments for Discrete Math Theory 2 and Machine Learning, serving 893 students

UVA'S APPLIED MATHEMATICS DEPARTMENT, PROBABILITY TEACHING ASSISTANT

Jan 2022 - May 2023

- Debugged MATLAB code for 135 students and held office hours to assist with lecture material
- Created and lectured on course material that scaffolded student learning in class projects

NEW YORK CITY'S UPPERLINE CODING SCHOOL, TEACHING ASSISTANT

Jun 2021 - Aug 2021

- Instructed web design and data science classes, organized career panels, and tutored 60 middle and high school students

Service

STATE DEPARTMENT'S TECHGIRLS PROGRAM, STUDENT AMBASSADOR AND COURSE FOUNDER

Jun 2019 - Present

- Engineered video games in Java, managed Unix operating systems, and promoted cultural education
- Taught a course on combating COVID-19 misinformation with data science and mentored girls hailing from 13 countries

Skills

Languages Python, R, Java, JavaScript, PHP, MATLAB, C, Assembly x86-64, SQL, English, Latin, Mandarin

Tools Huggingface, Tensorflow, Git, SLURM, PyPi, JavaFX, JUnit, Metasploit, Nmap, Unix, Wireshark

Hobbies and Interests

- **Postcard collector** namely postcards from the New York Public Library and ones that glow-in-the-dark
- **Judy Blume and Stephen King reader** with *Summer Sisters* and novels with Holly Gibney in them being my favorites
- **Fan of standup comedy** and my favorite comedians are Ari Shaffir, Josh Johnson, Chris Garcia, and Sam Morril