

Tianyun Zhang

CONTACT INFO	+1 (408) 797-7077 tianyun2@andrew.cmu.edu www.linkedin.com/in/tianyun-zhang
EDUCATION	Carnegie Mellon University Aug 2023 - Present <i>Ph.D. Electrical and Computer Engineering</i>
	University of Illinois at Urbana-Champaign Aug 2020 - May 2023 <i>B.S. Computer Science + Economics, minors in Applied Statistics, Mathematics</i> GPA: 3.95/4.00
	Relevant Coursework: Advanced Topics in Computer Architecture, Computer System Organization, System Programming, Algorithms & Models of Computation, Data Structures, Software Design Studio, Artificial Intelligence, Econometrics of Policy Evaluation
RESEARCH INTERESTS	Investigations into designing programming applications for novel computer architectures and making data-centric hardware architectures more accessible to software engineers.
RESEARCH EXPERIENCE	Carnegie Mellon University Aug 2023 - Present Advisor: Prof. Franz Franchetti <i>Graduate Research Assistant</i> <ul style="list-style-type: none">Researching computer architecture and systems
	ARCANA Research Group at University of Illinois Jan 2022 - May 2023 Advisor: Prof. Saugata Ghose <i>Undergraduate Researcher</i> <ul style="list-style-type: none">Researched programming models for applications of processing-in-memory (PIM)Explored applications of the MapReduce algorithm on processing-using-memory architectures—specifically, PageRank, word count, etc. on RACER, a bit-pipelined ReRAM chip
	Gies College of Business at University of Illinois June 2021 - May 2022 Advisor: Prof. June-Young Kim <i>Research Assistant</i> <ul style="list-style-type: none">Automated collection and cleaning of financial transcript data using PythonAnalyzed text to interpret impact of transcript sentiment on company performance
PROFESSIONAL EXPERIENCE	KQ Capital June 2023 - Aug 2023 <i>Venture Capital Intern</i> <ul style="list-style-type: none">Performed market research and analysis to assess potential investments within the computer hardware industryScreened and evaluated startup pitches, providing specialized insights into their technical innovations and market potential
	Amazon May 2022 - Aug 2022 <i>Software Development Engineer Intern</i> <ul style="list-style-type: none">Processed data and built interface of seller product applications for internal customersAccomplished technical stack migration to centralize rendering logic and decrease build time from minutes to seconds
	BP June 2021 - Dec 2021 <i>Digital Security AI Developer Intern</i> <ul style="list-style-type: none">Designed and developed remote access virtual assistant to monitor remote access usage to automation systems and identify ways to improve the serviceWorked with Process Control Network (PCN) architecture using Azure DevOps CI/CD pipeline
LEADERSHIP AND TEACHING	Engineering Community Outreach Jan 2024 - Present <i>Instructor</i> <ul style="list-style-type: none">Fostering connections between Carnegie Mellon University and the Pittsburgh community by delivering STEM curriculum to K-12 students, e.g. introduction to microcontrollersApplying pedagogy and classroom management practices to create an engaging learning environment for students from mixed socioeconomic backgrounds and experiences with math, science, and coding

LEADERSHIP AND TEACHING CTD.	Women in CyberSecurity (WiCyS) at Illinois	Sept 2020 - May 2023
	<i>President</i>	<i>Jul 2022 - May 2023</i>
	<ul style="list-style-type: none"> Coordinated activities of the leadership team, university faculty and admin, and national WiCyS members to accomplish organization-wide initiatives 	
	<i>Vice President</i>	<i>Aug 2021 - Jul 2022</i>
	<ul style="list-style-type: none"> Established communication with 10+ companies and obtained WiCyS's first sponsorship funding from industry Organized technical workshop collaborations with corporate sponsors (e.g. reverse engineering and security trends) drawing over 60 members in attendance 	
	<i>Technical Chair</i>	<i>Sept 2020 - Aug 2021</i>
	<ul style="list-style-type: none"> Planned and presented bi-monthly technical workshops for members, e.g. workshops introducing command line security challenges, cryptography, steganography Managed team creating top-down 2D game with JavaScript to teach K-12 students security 	
	CS 433 Computer System Organization Staff	Jan 2023 - May 2023
	<i>Course Grader</i>	
	<ul style="list-style-type: none"> Aided development of homework and exam questions testing conceptual understanding of computer architecture Designed grading rubrics and prepared personalized feedback on assignments 	
	CS 196 Freshman Honors Staff	Jan 2021 - Dec 2021
	<i>Project Manager</i>	
	<ul style="list-style-type: none"> Led 3 teams of 5 students on stock trend analysis, scheduling, and music preference web apps Created coding tutorials and weekly workstreams for team under scrum-based agile framework 	
	CS 125 Introduction to Computer Science Staff	Jan 2021 - May 2021
	<i>Course Assistant</i>	
	<ul style="list-style-type: none"> Mentored students with daily Java coding homework and machine projects during office hours Narrated discussion-style lesson content walk-throughs 	
	Illinois Business Consulting	Sept 2020 - May 2021
	<i>Consultant</i>	
	<ul style="list-style-type: none"> Collaborated with team of 9 consultants to advise insurance agency about improving risk aggregation assessment and modeling data representation Researched and identified advantageous statistical and machine learning models to provide client with new direction in future risk analysis Created innovative Blender animations to symbolically visualize risk Developed weekly PowerPoint presentations to communicate cohesive information to client 	
PROJECTS	Aural Trainer	April 2021
	<ul style="list-style-type: none"> Interactive ear trainer in C++ with a randomly generated sequence of melodic/harmonic intervals aimed to help students practice for music performance aural exams 	
SKILLS	Programming Languages: C, C++, Python, R, Java, Bash, C#, Kotlin, TypeScript Graphics and Audio: Premiere Pro, After Effects, DaVinci Resolve, Audition, Audacity, Blender Languages: English (Native), Chinese (Native), French (Intermediate), German (Beginner)	
HONORS	Carnegie Institute of Technology Dean's Fellow (CMU) (2023) Procter & Gamble Excellence in Leadership Award (2023) Women in CyberSecurity Conference Scholarship (2021, 2022) JP Morgan Chase Women in Computer Science Scholarship (2021) Gold Medalist, The National French Contest (2020) Violin Distinction, Associated Board of the Royal Schools of Music (2018)	
AFFILIATED ORGANIZATIONS	Member (Former Student Chapter President), Women in CyberSecurity (WiCyS) Member, Association for Computing Machinery (ACM) SIGARCH Member, Society of Women Engineers (SWE) Member, The Econometric Society Member, Phi Beta Kappa Society	