

Danica Xiong

☎ (858) 999-1736 | ✉ danica.xiong@gmail.com | 🏠 danicax.github.io | 📱 danicax | 🌐 danica-xiong | 🇺🇸/🇨🇦 US/Canada Dual Citizen

Education

Stanford University

M.S. IN COMPUTER SCIENCE

Stanford, CA

Sept 2023 – June 2025

- Incoming Masters student

University of California, San Diego

B.S. IN COMPUTER SCIENCE AND ENGINEERING

San Diego, CA

Sept 2018 – March 2023

- 3.92 GPA: Magna Cum Laude Latin honors, Warren Honor Society, 8x Provost Honors Recipient
- 4.0 GPA: Minor in Mathematics, 3.98 Major GPA

University of Toronto, St. George

SHADOWED SALLY DAUB (FOUNDER OF ViXS)

Toronto, ON

Oct 2017

- Supported entrepreneurs to conceptualize and polish their pitches involving AI applications
- Attended meetings with CEOs (iBinary's Ken Nickerson, Kik's Ted Livingston) to discuss AI development

Experience

Amazon

SOFTWARE DEVELOPMENT ENGINEER INTERN

Austin, TX

Jun 2022 – Sep 2022

- Worked on time-series ML model that generates inferences, forecasting customer grocery sales for supply chain
- Created and revised database and application designs, approved by Senior Software Developers, Managers, and Amazon Scientists
- Cleaned and optimized data using AWS services for backtesting and architecting a new data pipeline
- Designed and implemented full stack portal to display forecast data in real-time, loads in < 5 seconds & within minutes of generation

Center for Visual Computing

UNDERGRADUATE RESEARCHER

San Diego, CA

Sep 2022 – Mar 2023

- Benchmarked optimal automatic differentiation (Forward vs Backward) workflow for differential rendering
- Built Python Compiler Javana that compiles inverse rendering programs to assembly to optimize for register mapping and spilling

Human-centered eXtended Intelligence Lab

CO-AUTHOR, UNDERGRADUATE RESEARCHER

San Diego, CA

Sep 2021 – Jun 2022

- Aggregated time and user data, wrote and tested VR scripts, made interface mockups, 3D models, and Unity scenes for XR application
- Conducted studies for Unmapped, an AR/VR Networked app w/ holographic projections, to perform remote surgical operations

University of California, San Diego

INSTRUCTIONAL ASSISTANT

San Diego, CA

Jun 2021 – Mar 2023

- Wrote exams and homework problems, programming assignments, test cases, reference solutions, automatic grading scripts, and held office hours (helped hundreds of students) for: Design and Analysis of Algorithms, Functional Programming, and Computer Graphics
- Taught students topics: Dynamic Programming, Graph Algorithms, Lambda Calculus, Higher Order Functions, OpenGL

Awards & Publications

2022	Co-Author , UnMapped: Exploiting Experts' Situated Experiences in Collaborative Mixed Reality	SIGCHI 2023
2022	Presenter , Developed and demoed real time 3D networked engine at Qualcomm Center, that featured realtime raytracing with hardware supported acceleration	San Diego, CA
2019	Top 5 , out of 70 teams at HACKXX. Made an interactive VR museum that transports users to event	San Diego, CA
2018	Silver , SKILLS Robotics competition (Built 2 remote controlled, 1 autonomous robot using VEX)	Toronto, ON

Skills

Languages	Java, C, C++, C#, Python, Javascript, Haskell, GLSL, HLSL, LaTeX, System Verilog, MATLAB, R
Graphics/Game Development	DirectX12, OpenGL, OpenCV, Unity, Steam VR, Oculus, Autodesk Maya
Web Development	ReactJS, SQL, HTML, CSS, REST API, HTTPS API, Node.JS, JWT Tokens
Cloud & AWS Technology	S3, Lambda, DynamoDB, AuroraDB, Athena, Glue, EC2, Route 53, Cognito
Project Management	Agile, Github, Git, Github Actions
Unix software tools	Vi, Bash, Valgrind, ANT, shell scripting