

EXPERIENCE

- Senior Software Engineer @ Applied Sciences (Microsoft)

Jan 2025 - Present

 - Incubating novel A.I. user experiences with collaboration across W+D, MSR & ID.
 - Developing full-stack functional prototypes across web & mobile platforms.
- Software Engineer @ A.I. Platform (Microsoft)

Jan 2020 - Jan 2025

 - Shipped Online Endpoints to 50+ regions for Azure OpenAI, Copilot, Office & 3p.
 - Scaled cloud infrastructure to serve trillions of inferences/month w/ 6 9's SLA.
 - Optimized Network Address Translation to reduce COGS by \$10 million/year.
 - Completed security, privacy & component governance audits as Security Champ.
 - Spearheaded livesite process improvements via TSGs & SOPs as DRI Champ.
 - Implemented Envoy Proxy build pipeline w/ Bazel & custom C++ filters, e.g.:
 - SHA-256 Key-Based Authentication (KBA) filter w/ CORS preflight support.
 - Azure Active Directory (AAD) authentication filter w/ LRU decision cache.
 - Global Rate Limiting filter w/ Go microservice to pub/sub to Redis cache.
 - Set up runners & telemetry pipelines in Azure Data Explorer, Kusto & SQL.
 - Shipped PowerBI & Grafana dashboards to track platform metrics & logs.
- Software Engineer Intern @ A.I. Platform (Microsoft)

May 2019 - Aug 2019

 - Designed Jupyter notebook CI pipeline w/ Azure DevOps, ML SDK & Functions.
- Software Engineer Intern @ Ventana (Roche)

May 2018 - Dec 2018

 - Pushed feature-adds & bug-fixes for MEAN stack digital pathology web app.
 - Prototyped OpenSeaDragon-esque image renderer & annotator in PixiJS.
 - Modernized Nagios server monitoring w/ Icinga, Graphite & Grafana.
- Director @ HackMerced IV (MLH)

May 2018 - May 2019

 - Hosted non-profit collegiate hackathon for 300 students, fundraising \$20,000!
- Web Developer @ CITRIS & Banatao Institute (UCM)

May 2017 - Dec 2018

 - Developed GitOps content management system (CMS) via jQuery & CSV files to replace Drupal CMS, hosting via GitHub Pages: <https://citris.ucmerced.edu>.
- Instructor @ Summer of Game Design (MVHS)

Jun 2015 - Jul 2016

 - Co-founded non-profit game programming summer camp, fundraising \$25,000!

RESEARCH & EDUCATION

- Bachelor of Science @ University of California, Merced

Aug 2016 - Dec 2019

 - Computer Science & Engineering, *magna cum laude* (GPA 3.74)
- Lead Research Assistant @ VICE Lab (UCM)

Aug 2018 - Dec 2019

 - Led team to develop heuristic & ML scripts in Google Earth Engine to model & predict California's agricultural fallowing via Earth observation satellite data.
 - Onboarded lab to GitHub & wrote open-sourced scripts in Python, C# & R.
 - Refurbished lab's website, hosting via GitHub Pages: <https://vicelab.net>.
- Research Assistant @ ANDES Lab (UCM)

Jan 2019 - May 2019

 - Visualized InfluxDB data for HVAC predictive control system in Python, Grafana.
- Research Assistant @ SAIL + MACES (UCM & NASA MUREP)

Aug 2017 - May 2018

 - Debugged code to 3D-print Fermi surfaces via Marching cubes in Fortran90.

SKILLS

years

- Languages

C / C++ / C#8

Python6

JavaScript / TS4

Golang / Rust2

Java / Kotlin2
- Frameworks

Azure / .NET6

MEAN / MERN2

LAMP / Drupal2
- Programs

Unity3D8

Docker / K8s4

Android Studio2

PROJECTS

- Iterate

"Code Mobilized"
- BitNaughts

"Code Gamified"
- MARP

" "

AWARDS

- Microsoft Hackathon '20

HackADuo Finalist
- ValleyHacks '19

First Place
- SLOHacks '19

Best Google Cloud
- Mobile App Challenge '18

\$2,000 Finalist Prize
- CitrusHack '18

Third Place
- SDHacks '18

Third Place
- SacHacks '18

Second Place
- HackDavis '18

Best Environment
- HackFresno '18

Best Hardware
- Mobile App Challenge '17

\$5,000 Grand Prize
- HackMerced '17

Best Design