Justin Jin

justinjinaz@gmail.com (+1) 480-435-1737 linkedin.com/in/justinjin43 github.com/jjin43

Junior Kubernetes engineer with experience in cloud infra., DevOps pipelines, and supercomputers.

Education

Master of Science - Computer Science **Aug 2021 - July 2025**

Minor - Mathematics ***GPA*** *- 3.82* ***Top 10% & Early Graduation***

Arizona State University *Tempe, AZ*

Skills

Languages: C/C++ | C# | Java | Python | TypeScript | JavaScript | Go | Rust | Solidity | SQL | HTML/CSS

Technologies: UNIX | Git | Docker | Kubernetes | Helm | AWS | GCP | CI/CD | JUnit | React | Node.JS | Terraform (IaC)

Experience

Research Assistant / Teaching Assistant **Jan 2025 - Jul 2025**

J.Liang Lab of Medical Computer Vision @ ASU *Tempe, AZ*

- Trained vision deep learning AI models in medical imaging on the ASU supercomputers with A100 GPUs.
- Utilized SLURM job scheduler and shell scripting for training automation on a UNIX environment.
- Modified in-house Swin Transformer and multi-task DINO models (ViT) using pyTorch, leveraged annotator metadata in Chest X-ray datasets and improving the training pipeline, improving classification and localization AUC/Dice performance by 2% (Significant margin in SOTA research).
- Evaluated multi-task models on classification, localization, and segmentation using accuracy, FROC, Dice, etc.
- Utilized GitHub Copilot (GenAI) to learn and design model training pipelines, delivering in-house model improvements within 6 months.

Full-Stack Software Engineer Intern **Aug 2023 - May 2024**

ANDBOUNDS.com *Scottsdale, AZ*

- Migrated a monolithic Node.js backend to an RPC microservices architecture, improving scalability and maintainability.
- Containerized backend services into individual Docker Alpine images, deployed to scale with Kubernetes clusters on GCP.
- Integrated Tyk Open Source API Gateway for API exposure/rate limiting, along with Istio for internal service mesh.
- Built GitLab CI/CD pipelines for automated testing, validation, and deployment to Kubernetes.
- Used Terraform (IaC) and Helm for automated component deployments and version control.
- Maintained and updated the NoSQL MongoDB to the new architecture, ensuring secure and monitored access.

Relevant Projects

Canvas Web-Embed Attendance Tool **May 2023**

Full-Stack - CS Dept. TA Project *Tempe, AZ*

- Developed a web-embedded attendance tool that directly updates grades on *Canvas LMS* using university ID scanners.
- Implemented C programs for efficient binary parsing of scanner data and hardware library support.
- Built a Java Spring backend with Angular frontend, handling OAuth authentication and *Canvas LMS* REST API calls.
- Created JUnit unit tests ensuring communication with *Canvas LMS*, and designed the PostgreSQL database architecture.

AI Online Health Insurance Cost Predictor **Oct 2023**

Team Lead / Full-Stack - Cal Hack 10.0 Hackathon Project *San Francisco, CA*

- Developed a Python Flask backend with React frontend, including HTML/CSS pages with Bootstrap, hosted locally.
- Built a supervised regression ML model to predict healthcare costs using public insurance risk factor databases.
- Integrated with InterSystem(sponsor) servers for real-time model predictions, trained using A80 GPUs.
- Generated automated AI-driven insight/reports using Together AI LLM APIs.

Embedded Flash Driver for STM32 Flight Computer **Aug 2022**

Embedded Firmware - Sun Devil Rocketry Club Project *Tempe, AZ*

- Developed an embedded flash driver in C on an STM32 chip to store real-time data from all sensor modules.
- Utilized the HAL library to assert chip select pins and program the DMA controller to read/write data via the SPI bus.
- Implemented Direct Memory Access (DMA) without header blocking to meet high throughput requirements.
- Implemented timeout/ failure safe restarts and flash functionalities such as status check, enable/ disable, block erase.

Accomplishments

ASU X SUI Hackathon	*- Blockchain - Move (Rust-based) / cloud platform*	**2nd Place - Mar 2024**
Sun Hack 5.5	*- Blockchain - Solidity / cloud platform*	**3rd Place - Nov 2023**
Cal Hacks 10.0: InterSystem	*- LLM AI - Python / GPU A100*	**2nd Place - Oct 2023**
Devil's Invent X DASSH	*- Embedded - C / Arduino*	**2nd Place - 2023**
Arizona ASA Data Fest 2022	*- Data Visualization - R / Python*	**1st Place - Feb 2022**