Dennis Lustre

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EDUCATION

University of California, Irvine — September 2020 - June 2024
Bachelor of Science in Computer Science — *Irvine, CA*

- **GPA**: 3.63/4.0 (8x Dean's List)
- **Leadership & Involvement**: ICS Student Council Projects Committee, FUSION (Filipinx Undergraduate Scientist-Engineers in an Organized Network)
- **Courses**: System Design, Data Structures & Algorithms, Intermediate C++

EXPERIENCE

Software Engineer — March 2025 - Present
Fuerte (Startup) — *Hybrid*

- Joined as 1st engineer to develop a **React Native** mobile app for networking and event scheduling in the healthcare industry, working closely with a lean startup team to implement new features in sprints.
- Created a streamlined CI/CD workflow with **GitHub Actions** and **AWS CLI**, enabling rapid product iterations, automated E2E tests, and production deployments with minimal manual intervention and zero downtime.
- Implemented real-time features with **Pusher**, driving user engagement by displaying instant feedback for in-app messaging, event updates, and other user-to-user interactions.
- Utilizing **LogRocket** and **Sentry** for troubleshooting bugs and shipping fixes to production same day.

Software Developer — May 2024 - November 2024
Boundary Remote Sensing Systems (Startup) — *Remote*

- Developed an automation pipeline using **Python** to create customized reports with geospatial data visualizations.
- Designed and implemented a **React** app for analyzing 3D geospatial data by integrating **Cesium** and interfacing with backend services using **Zustand**.

Software Engineer Intern — July 2023 - July 2024
Thaddeus Resource Center — *Remote*

- Migrated a legacy Webflow app to **Next.js**, halving website costs.
- Managed a team of 6 web developers and accelerated their development by building a CI/CD pipeline, automating tests, builds, and deployments for staging and production using **GitHub Actions**.
- Assisted business operations by developing admin dashboards with **React** and **Firebase**.

PROJECTS

NASA Radiation Microscopy Generative AI Model | *Python, PyTorch Lightning* | GitHub

- Furthered research on the effects of cosmic radiation on astronauts by developing a GAN to augment NASA's BPS microscopy dataset, generating images that mimic irradiated cells.
- Experimented with transfer learning using an MNIST-trained CGAN as a starting point for the model.

Gesture-Controlled Robot Arm | *C++, Arduino* | GitHub

- Led development of embedded software for a gesture-controlled robot arm using **Arduino** microcontrollers, Bluetooth modules, and flex sensors.
- Won 1st place and 2 additional awards at the FUSIONCon competition: **Sponsor's Choice** and **Most Innovative Design**.

Audio Distortion VST Plugin | *C++* | GitHub

- Developed a standalone audio plugin by utilizing the JUCE framework and integration testing with FL Studio.
- Implemented hard clipping, soft clipping, and half-wave rectification distortion modes and a GUI with a real-time output meter.

Geospatial Web Game | *TypeScript, React.js, Tailwind CSS* | GitHub

- Developed a browser game in 24 hours, utilizing a reverse geocoder to generate geospatial clues for players to guess Orange County cities.
- Won 2 awards at Data@UCI's Datathon competition: **People's Choice** and **Best Use of Melissa Data API**.

TECHNICAL SKILLS

Programming Languages: JavaScript, TypeScript, C, C++, C#, Java, OCaml, HTML
Technologies: PostgreSQL, Node.js, Linux, Docker, AWS
Other: Visual Studio, Bash Shell Scripting, Powershell, GitLab, Agile, Scrum, Jira (Kanban)