Dennis Lustre

in dlustre | ⌽ dlustre | dennislustre.com | dennis.lustre@gmail.com

EDUCATION

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

- **GPA**: 3.63/4.0 (8x Dean's List)
- **Leadership & Involvement**: ICS Student Council Projects Committee | Mentor for FUSION
- **Courses**: Computer Vision, Machine Learning, Artifical Intelligence, Data Structures & Algorithms, System Design

EXPERIENCE

Software Developer   November 2023 - Present
ICS Student Council - ZotMeal   *Irvine, CA*

- **Led front-end development** by designing **Figma** mockups, creating Android and iOS compatible **React Native** components, and integrating with the back-end using **tRPC**
- **Sped up daily and weekly back-end services by 50%** by parallelizing async operations for all **AWS Lambda** functions
- **Slashed setup and teardown times for PostgreSQL integration tests by 30%** by adopting **Testcontainers** to simplify database test suites in **Vitest**
- **Built an events listing feature front-to-back** by utilizing **Cheerio** and **Axios** to scrape dining hall event data and display it on the app

Software Lead   November 2023 - May 2024
FUSION Engineering Project   *Irvine, CA*

- **Led the development of embedded systems software within a cross-functional team of 11 engineers** for a gesture-controlled robotic arm using **Arduino** microcontrollers
- **Achieved 1st place and won 2 additional awards at FUSIONCon: Sponsor's Choice** and **Most Innovative Design**
- **Mentored 2 software developers, accelerating their onboarding process** by organizing workshops, code reviews, and coding sessions, fostering a culture of learning and collaboration

Software Engineer Intern   July 2023 - July 2024
Thaddeus Resource Center   *La Verne, CA*

- **Led a website overhaul that reduced operational costs by 78%, optimized site performance using static generation, and secured more valuable internships for the organization:** Pitched the project for CEO approval, transitioned from Webflow to **Next.js** and **Firebase**, led a team of 6 using **Agile** and **CI/CD** methodologies, and deployed as a **Docker** container to DigitalOcean
- **Saved an estimated 3 hours of CI and developer time per week** by creating a streamlined **CI/CD** pipeline with **GitHub Actions**, **PNPM**, and **Docker**
- **Accelerated CI execution times by 50%** through parallelizing **Jest** and **Playwright** test suites and caching dependencies

PROJECTS

Geospatial Web Game | *TypeScript, Python, Next.js* | GitHub   April 2024

- **Won 2 awards at Data@UCI's Atlantis Datathon: People's Choice** and **Best Use of Melissa API or Data Sets**
- **Developed a full-stack browser game in 24 hours** that utilizes a reverse geocoder API to generate geospatial clues for players to guess Orange County cities
- **Built a custom geospatial dataset** by cleaning and processing data with **pandas** to derive clues for 34 cities

NASA Radiation Microscopy Generative AI Model | *Python* | GitHub   March 2023 - June 2023

- **Furthered research on the effects of cosmic radiation on astronauts** by developing a Generative Adversarial Network with **PyTorch Lightning** to generate synthetic images that mimic irradiated cells
- **Classified images with 93% accuracy on a large subset of the domain** by leveraging ResNet101
- **Presented project results to NASA GeneLab scientists** after developing the project in **Agile** sprints

TECHNICAL SKILLS

Programming Languages: TypeScript/JavaScript, Rust, C, C++, Java, SQL, HTML, CSS/Tailwind CSS
Tech: React.js, Node.js, ORM, MySQL, Postman, Cypress, AWS, Azure, Vercel, NoSQL, CUDA, NumPy
Other: GitLab, Scrum, Jira/Kanban, Linux, Jupyter, Bash/Powershell, Shell Scripting