

# Dennis Lustre

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## EDUCATION

### University of California, Irvine

September 2020 – June 2024

*Bachelor of Science in Computer Science, Specialization in Intelligent Systems*

*Irvine, CA*

- **GPA:** 3.58 (6x Dean's List)
- **Leadership & Involvement:** Software Sub-Team Lead for FUSION Engineering Project 23-24 | ICS Student Council Projects Committee

## TECHNICAL SKILLS

**Programming Languages:** TypeScript/JavaScript, Python, C, C++, SQL, HTML, CSS/TailwindCSS, Bash

**Tech:** React.js, React Native, Next.js, Node.js, Prisma, PostgreSQL, Docker, Postman, Cypress, tRPC, Firebase

**Other:** GitHub/GitLab, Agile (Scrum), Jira (Kanban), CI/CD (GitHub Actions), Linux CLI, Jupyter, DigitalOcean

## EXPERIENCE

### Software Engineer Intern

July 2023 – Present

*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
- **Reduced DevOps manual intervention by 100%** by creating a **CI/CD** pipeline with **GitHub Actions** workflows and **Docker**. Further optimized the pipeline by parallelizing **Jest** and **Cypress** test suites and caching build and test dependencies
- **Significantly improved code maintainability** by converting codebase from **JavaScript** to **TypeScript**, integrating **Zod** to ensure robust type safety, and achieving **100%** adoption rate by leading a workshop for the development team
- **Reduced total lines of code by 50% (over 700 lines)** by engineering an efficient approach for a **React Native** app, using **React** components to dynamically render and populate 25+ screens
- **Pioneered the introduction of testing practices:** Took initiative by implementing a **Jest**-based testing environment and authoring clear documentation for testing procedures to foster a culture of quality assurance within the team
- **Mentored new interns, accelerating their onboarding process** with hands-on setup assistance, comprehensive repository walkthroughs, and navigating culture and organizations

### Software Developer

Nov 2023 – Present

*ICS Student Council - [ZotMeal](#)*

*Irvine, CA*

- **Streamlined full-stack development, increased scalability, and reduced maintenance overhead** by overhauling the monorepo to use **Turborepo**, **AWS Lambda**, and **T3 Stack (TypeScript, Prisma, tRPC)**
- **Built an events listing feature** by utilizing **Cheerio** and **Axios** to scrape dining hall event data and utilized **Prisma** to store the events in a serverless **PostgreSQL** database
- **Increased backend reliability by maintaining 100% test coverage on assigned features** by writing unit tests and transactional database integration tests with **Vitest**

## PROJECTS

### NASA Radiation Microscopy Generative Model | *Python, PyTorch Lightning* | [GitHub](#)

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

### Aim Trainer Web Game | *JavaScript, React.js, Firebase, HTML, CSS* | [GitHub](#)

August 2023

- **Optimized load times resulting in a 66% improvement in First Contentful Paint (FCP) and an 81% improvement in Largest Contentful Paint (LCP)** by module bundling with **Vite**
- **Implemented user authentication and cloud database** with **Firebase** Authentication and Cloud Firestore
- **Automated the build and deployment pipeline for efficient publishing to GitHub Pages** by leveraging GitHub Actions