

William D. Orlopp

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EDUCATION

University of California, Davis <i>Computer Science, M.S. (4.0/4.0 GPA)</i>	<i>Sep 2024 – Mar 2026</i>
University of California, Davis <i>Computer Science, B.S. (3.6/4.0 GPA)</i>	<i>Sep 2021 – Jun 2024</i>
Relevant Coursework: Data Structures and Algorithms, Algorithm Design and Analysis, Machine Dependent Programming, Object-Oriented Programming, Gameplay Programming, Probability/Statistics for Computer Science, Software Engineering, Computer Graphics, Artificial Intelligence, Operating Systems, Cryptography.	

WORK EXPERIENCE

Samsung – Assistant Engineer, Back-End Server Intern Mountain View, CA	<i>Jun 2025 – Aug 2025</i>
<ul style="list-style-type: none">Built GraphQL API in Ruby on Rails to dynamically list and format S3 objects with public URLs.Added creative duplication in the back-end and React/Typescript front-end, saving AdOps 5 minutes per creative.Developed end-to-end tests with Cypress to ensure feature and pipeline stability.	
UC Davis Molecular Computing – Graduate Student Researcher Davis, CA	<i>Sep 2024 – Dec 2025</i>
<ul style="list-style-type: none">Enhanced <i>scadnano</i>, a DNA nanostructure design tool, using Dart, Python, and React.Optimized platform performance and added new design features based on DNA nanostructure design research.Developed a standalone, cross-platform executable version to support offline use.	
#include – Platforms Team Developer Davis, CA	<i>Nov 2024 – Jun 2025</i>
<ul style="list-style-type: none">Engineered authentication (OAuth) system using Auth.js for an E-Store management platform.Integrated backend with Prisma, Auth.js, NextJS, and Apollo in collaboration with team members.Developed frontend integration using React for seamless user interaction.	
Freelance – Full-Stack Software Engineer Remote	<i>Sep 2024 – Dec 2024</i>
<ul style="list-style-type: none">Developed a secure portfolio website with OAuth and Auth.js for an artist.Built backend with Prisma, GraphQL, PostgreSQL, and Amazon S3 for image management and metadata.Automated updates and page view tracking with Docker and Grafana for seamless operation.	
Sun-Pro USA – Full-Stack Software Engineer Intern Sacramento, CA	<i>Jul 2022 – Jun 2024</i>
<ul style="list-style-type: none">Upgraded hardware/software systems and resolved critical performance bottlenecks.Diagnosed and fixed excessive CPU usage caused by high-frequency file reads.Authored detailed documentation and failure response procedures to ensure continuity and fault recovery.	

PROJECTS

cafeBot – Creator Java/Spring Boot, Unix, ExpressJS, Maven, Gradle	<i>Apr 2021 – Present</i>
<ul style="list-style-type: none">Discord bot serving 180,000+ users across 2,200+ servers.Leveraged asynchronous multithreading to reduce startup time by 1500% and response latency by ~300ms.Built a high-performance backend using Spring, JPA, and Hibernate.	
Proxy Chat – Creator Java, Gradle, Bungee/Velocity API, Discord API	<i>Feb 2024 – Present</i>
<ul style="list-style-type: none">Developed proxy plugin enabling cross-server communication with configurable business features.Integrated Discord API for real-time notifications and user activity tracking.Designed modular toggles for chat, join/leave events, and server switches.	
Back to the Jungle – Project Lead C#, Unity	<i>May 2023 – Jun 2023</i>
<ul style="list-style-type: none">Led a team in building a 2D endless runner game, managing coordination via GitHub.Developed player/enemy movement, collision logic, and coin spawning systems.Delivered polished gameplay using Unity's scene management and asset tools.	

SKILLS

Programming Languages/Frameworks: Java, Spring Boot, C, C++, C#, Python, Javascript, Typescript, ExpressJS, React, NextJS, Rust, LaTEX, HTML/CSS/SCSS, Prolog, MySQL, PostgreSQL, SQLite, Kotlin.
Tools and Technologies: Jetbrains IDEs, Visual Studio Code, Unity, Microsoft Office Suite, Git, GitHub, Docker, Node, Cargo, Unix/Linux, Maven, Gradle.

Enhanced Descriptions and Projects: <https://www.orloppw.com>