

William D. Orlopp

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EDUCATION

University of California, Davis

Computer Science, M.S. (4.0/4.0 GPA)

September 2024 – June 2026

University of California, Davis

Computer Science, B.S. (3.6/4.0 GPA)

September 2021 – June 2024

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

#include – Platforms Team Developer | Davis, CA

November 2024 – Present

- Created an authentication system with Auth.js for a new E-Store management system.
- Collaborated with a team of developers to integrate the authentication with Prisma, Auth.js, and Apollo.
- Currently working on integrating the backend with a React front-end.

UC Davis Molecular Computing – Graduate Student Researcher | Davis, CA

September 2024 - Present

- Contributed to the development of scadnano, a web-based DNA nanostructure design platform.
- Worked with Dart, Python, and React to enhance software functionality and optimize performance.
- Conducted research on DNA nanostructure design principles, integrating features into the scadnano platform.

Sun-Pro USA – Full Stack Software Engineer Intern | Sacramento, CA

July 2022 – June 2024

- Concentrated on assisting the company in upgrading and implementing new hardware and software systems.
- Fixed an issue where CPU usage would spike due to a bug reading a text file over 5000 times per second.
- Added proper documentation and created a step-by-step failure guide should an application fail.

PROJECTS

cafeBot – Creator | Java/Spring Boot, Unix, ExpressJS, Maven, Gradle

April 2021 – Present

- A simple application that can be used as both a moderation tool and for entertainment.
- Used by over 1500 Discord servers, totaling over 160,000 users.
- Facilitates asynchronous multithreading to provide users with fast and reliable data.
- Uses a Spring, JPA, and Hibernate backend to provide high-performance and concurrent usage.
- Switching to asynchronous multithreading decreased startup time by 1500% and usage ping by ~300ms.

Proxy Chat – Creator | Java, Gradle, Bungee/Velocity API, Discord API

February 2024 – Present

- A simple addon for the Bungee and Velocity APIs that allow end-users to communicate with each other via any connected server on the proxy.
- Full customizability for the businesses using this software via configuration files.
- Implements the optional Discord API for on-the-fly notifications for businesses.
- Various toggles for when a user joins, leaves, switches, or chats on the proxy.

Back to the Jungle – Project Lead | C#, Unity

May 2023 – June 2023

- Managed and developed alongside a team, creating a game called “Back to the Jungle,” an endless 2D runner.
- Implemented core features within the game through C# such as player and enemy movement, coin spawn logic, coin patterns, an abstract scene transition script, and player collisions.
- Specialized on being the team leader, ensuring the project merges smoothly via GitHub.
- Utilized Unity’s provided tools and frameworks to create an immersive gaming experience.

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>