

# Joseph Laurent Krueger

Software Development Engineer

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## 🎓 EDUCATION

University of Washington (Seattle campus)

December 2024

B.S. Computer Science, Minor in Business

GPA: 3.70/4.0

President and Co-founder of Clearvote, Algorithmic Trading Club, Salsa Club, UW Farm

## 💻 EXPERIENCE

Clean Power Research, Software Engineering Intern 🔄

June 2024 — October 2024 | Bellevue, WA

- Designed and implemented a scalable, fault-tolerant, **.NET** app that inserts charts into PDFs via dependency injected data
- Extended existing orchestration infrastructure with **AWS Lambda** to connect with a containerized **Node.JS** app
- Designed new charts generated for on-demand reports in under 5 seconds used by HVAC contractors across the country
- Wrote technical documentation and automated tests for debugging and monitoring to a production-ready coding standard

Clearvote, Co-founder 🔄

August 2023 — Present | Seattle, WA

- Founded a student-run non-profit developing a cross-functional, open-source **Next.js** application deployed through AWS
- Deployed a throttled, high availability **RESTful API** supporting over **over 3000 users** during a critical usage period
- Setup a **DynamoDB** NoSQL database leveraging web-scraped candidate data enriched with finetuned GPT-4o metrics and state geodata boundaries to provide localized election information across the state of Washington
- Leading prioritization of dependency management, user research, security, cloud architecture and code quality

MCG Health, Software Engineering Intern 🔄

June 2023 — September 2023 | Seattle, WA

- Worked on the CareWebQI Team to overhaul an In-patient diagnostic and perscription tool used by **2,800 hospitals**
- Migrated from a deprecated version of **Angular** to work with a **.NET Core** backend
- Created a CI/CD pipeline in **Azure** for automated testing and deployment
- Added auto-completion and code lookup support for **70,000 medical care guideline codes**
- Applied agile project management principles in cross-team sprint planning sessions with **Confluence** and **JIRA**

The University of Washington, Teaching Assistant 🔄

January 2023 — June 2023 | Seattle, WA

## 📁 PROJECTS

Financial Portfolio Rebalancer, iOS/Android Application 🔄

April 2024 — Present

- Led development of a screen-reader accessible, cross-platform financial app using **Flutter** with MVC design principles
- Integrated real-time stock data from an API with efficient error handling and retry mechanisms prioritizing data consistency
- Implemented state management using **Hive** for persistent storage and caching
- Developed and tested undo/redo functionality with **multi-threading** to maintain UI responsiveness
- Designing a **C++** stock speculation engine using time-series analysis models trained on distributed **Kubernetes** clusters

## 📚 SKILLS

Mobile Development:	Cross-platform (Flutter, React Native), SEO, Responsive Design, Tailwind CSS, Material UI
Testing:	Monitoring (AWS CloudWatch), Testing (Unit, Integration, Performance), Test-Driven Development
Project Management:	Software Development Lifecycle, Agile Methodology (Scrum with Confluence, Jira, GitHub, GitLab)
System Architecture:	API and service development, x86-64, ARM, Distributed system design, OOP Design Patterns
Frontend:	REST API Integration, Client-Side State Management, HTML/CSS, ES6 JS, Interaction Design
Frameworks:	Flutter (iOS, Anderoid development), .NET, Flask, React, Next.js, Vue, AngularJS
Database Systems:	ER Modeling, Relational Databases (SQLite, MySQL), NoSQL (DynamoDB)