# Joseph Laurent Krueger



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#### **EDUCATION**

#### University of Washington (Seattle campus)

B.S. Computer Science, Minor in Business

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

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Clean Power Research, Software Engineering Intern &

June 2024 — October 2024 | Bellevue, WA

December 2024

GPA: 3.70/4.0

- 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-40 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 perscritption 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, Full Stack Application &

April 2024 — Present

- Trade Dashboard: Designed a responsive Flutter application for stock trades, prioritizing accessibility and UX design
- Auto Trader: Developed a C++ Technical Analysis application with data caching to enable sub-5-second stock speculations and >25% YOY returns using an estimated moving average algorithm
- Time Series Forecast: Designing a **Kubernetes** cluster integrated with **Prometheus** and **Grafana** to ingest preprocessed stock data and train a supervised regression machine learning model for stock price time series forecasting

**DubHacks Hackathon**, illustrAltor — Winner §

October 2022

## **SKILLS**

Languages: Java, C++, C#, TypeScript, Python, Dart, C, R

Frameworks: Flutter (iOS, Anderoid development), .NET, Flask, React, Next.js, Vue, AngularJS

**Frontend:** REST API Integration, Client-Side State Management, HTML/CSS, ES6 JS, Interaction Design System Architecture: API and service development, x86-64, ARM, Distributed system design, OOP Design Patterns

**Database Systems:** ER Modeling, Relational Databases (SQLite, MySQL), NoSQL (DynamoDB)

**DevOps:** Kubernetes, Docker, CI/CD (Azure), Shell scripting (PowerShell, Bash), Linux/Unix administration **Testing:** Monitoring (AWS CloudWatch), Testing (Unit, Integration, Performance), Test-Driven Development