# Joseph Laurent Krueger

## ✓ Software Engineer

## **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-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 CareWebQl 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: C#, C++, Java, TypeScript, ES6 JS, Python, Dart, C, R

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

**DevOps:** CI/CD pipelines (Azure DevOps), Shell scripting (PowerShell, Bash), Linux/Unix administration

**Testing:** JUnit, Jest, Selenium, Test-Driven Development

Cloud Infrastructure: Docker, Kubernetes, AWS (RDB, Lambda, DynamoDB, EC2, S3, Amplify), GCP, Azure

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