Joseph Laurent Krueger

IBM Software Engineer

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EDUCATION

University of Washington (Seattle campus)

September 2022 — December 2024

GPA: 3.70/4.0

Bachelor of Science in Computer Science, Minor in Business

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 a scalable, fault-tolerant .NET API service that inserts charts into PDFs from interface-defined endpoints
- Extended existing orchestration infrastructure with AWS Lambda to connect with a containerized Node.JS app
- Implemented an Azure DevOps CI/CD pipeline for automated deployment in dev and test environments
- 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
- · Coordinated a marketing campaign with targeted branding, in-person promotions, and social media partnerships

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
- 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

Led class sessions, office hours, and individual tutoring for a computer architecture course and a introductory Java course

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

Built a Flask app that makes picture books out of novels with AI generated images and won from a pool of 455 participants

SKILLS

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

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

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

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

System Architecture:
API/Service development, x86-64/ARM, Distributed systems, Design patterns & SOLID principles