Joseph Laurent Krueger

Software Engineer

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EDUCATION

University of Washington (Seattle campus)

B.S. Computer Science, Minor in Business

December 2024 | Seattle, WA, United States

3.70/4.0 GPA

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

Algorithms, Computer Security, Data Structures, Distributed Systems, Human-Computer Interaction Programming, Hardware/Software Interface, Natural Language Processing, Parallel Computing, Software Design & Implementation, Systems Programming, Statistics, Accounting (with Excel), Mangemement, Marketing

</> </> 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
- 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



Technical

Python, Java, C++, SQL (MySQL, SQLite), Linux/Unix Shell Scripting, Git/GitHub, Docker, REST APIs, TCP/IP Networking, CDN (Content Delivery Networks), Cloud Platforms (AWS, GCP, Azure), Monitoring Tools (Amazon CloudWatch), Cl/CD Pipelines, Debugging Tools (gdb), D3

Conceptual

Production Debugging, Capacity Planning, System Reliability Engineering (SRE), Scalability and Performance Optimization, Incident Management, Distributed Systems Design, Microservices Architecture, Agile Development, DevOps Practices, High Availability Systems, Fault Tolerance, Data Analysis and Visualization Cookie security, SQL Injection, IAM Resource Management

SIDE 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 **& Unsuccessful Music Career**, Spotify Album **&**

October 2022

September 2020 - July 2021