Adrian Jendo

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Education

University of Waterloo   2019 – 2024
B.A.Sc Honours Mechatronics Engineering with Co-op – Specialization in Software Engineering   Waterloo, ON
- **Dean's Honours List:** 96% Cumulative Average, recipient of First in Class Engineering Scholarship & President's Research Award
- **Favourite Courses:** Data Structures & Algorithms, Real-Time Operating Systems, Search Engines, Compilers, Control Systems

Work Experience

Undergraduate Research Assistantship | University of Waterloo | Waterloo, ON   Sept. 2023 – Present
- Developed a high-performance, wait-free algorithm in **C++** for executing fault-tolerant DCAS instructions in multi-threaded programs leveraging Intel Optane persistent memory, and validated its robustness through systematic experimentation against lock-free implementations, recording a runtime improvement of a factor of 10 for high contention workloads

Software Engineer Intern | Carta | Kitchener, ON
Valuations Product Team   May 2023 – Aug. 2023
- Designed and implemented an end-to-end solution to enable **Amazon S3** file-uploads on web form, increasing conversion by **10%**
- Developed **Python** service to auto-fill form inputs with data exposed through **gRPC APIs**, improving form completion time by **50%**
- Led stock expense sensitivity feature to optimize compliance workflow time by **90%** and improve audit resolution by several **weeks**
- Created **Amplitude** dashboards based on **React** frontend events for in-depth user behavior analysis, facilitating the identification of critical user drop-off points, resulting in data-driven optimizations and increased user engagement

Valuations Platform Team   Sept. 2022 – Dec. 2022
- Utilized **object-oriented** principles and **Datadog** Agent to create email tracking service, improving **company-wide** email observability
- Developed client-side interceptor to track **gRPC** caller origin metrics, enabling API throttling capabilities and **Datadog** monitoring
- Spearheaded tech-debt sprint by replacing inefficient **React** components and reducing **Sentry** noise by **130 daily alerts**

Full Stack Developer Intern | TD Asset Management | Toronto, ON   Jan. 2022 – April 2022
- Directed project to synchronize next business day holdings with **MS SQL Server** and **Python**, decreasing trading latency by **60%**
- Enhanced trading platform usability by creating a **React** feature to submit trades for multiple portfolios simultaneously

Full Stack Developer Intern | PiinPoint | Kitchener, ON   May 2021 – Aug. 2021 / May 2022 – Oct. 2022
- Spearheaded project to upgrade frontend state management framework to **Redux**, removing unwanted side effects caused by previous library and improving maintainability of frontend codebase by standardizing state usage
- Implemented **API priority queue** to reduce backend server load by **20%** and decrease loading times of vital UI components
- Wrote backend test cases with **Python** to unit test **APIs** and enable quick verification of system functionality in **CI/CD pipelines**

Data Science Intern | Cytel | Vancouver, BC   Sept. 2020 – Dec. 2020
- Developed web applications with **R Shiny** to enable researchers to systematically conduct Bayesian network meta-analysis

Projects

Wall Robot ⌨ | Rust, Jira
Successfully led team of 5 students to build a mechatronics device for traversing a wall and locating a target on the other side
- Implemented **path traversal algorithms** and **PID control system** in **Rust** to facilitate efficient and repeatable navigation
- Interfaced software with **gyroscope** and **time-of-flight** sensor to provide reliable location data and consistent course completion
- Organized timeline, requirements, tasks, and meetings to maximize productivity and diffused mission-critical blockers

Algo Vote ⌨ | React, Node.js, Docker, Nginx, Google Cloud, Algorand Blockchain
Developed a full stack web application with React and Node.js for creating decentralized elections with Algorand
- Leveraged smart contracts written on the **Algorand blockchain** with **TEAL** to conduct decentralized, permissioned voting

Skills

Programming Languages: Python, Java, Go, JavaScript/TypeScript, C/C++, Rust, SQL, HTML/CSS, MATLAB, R

Frameworks & Libraries: Django, Flask, React, Next.js, Redux, Node.js, TensorFlow/Keras, Selenium

DevOps: Git, CI/CD, Docker, Kubernetes, Helm, Google Cloud, Jenkins, CircleCI

Additional: Agile, gRPC, GraphQL, Kafka, Nginx, MongoDB, Datadog, Sentry

Languages: English, Polish, French, Spanish