John Ahn

john.ahn.es@gmail.com | johnahn.dev | linkedin.com/in/johnahn- | github.com/jahn18

EDUCATION

University of British Columbia   Vancouver, BC
Bachelor of Computer Science   *May 2025*

EXPERIENCE

Full Stack Developer Intern   May 2024 – Aug 2024
Checker Software Inc.   *Vancouver, BC*
- Developed a desktop application in **Electron** for Diffchecker, a comprehensive tool for comparing files and folders.
- Reduced memory usage **by 90%** for PDF comparisons by leveraging virtualized rendering and lazy loading.
- Improved application stability by isolating each tab in its own process, reducing the impact of crashes.
- Built a custom user analytics tool in **React** and **Node.js** for session recording and event tracking.

Software Developer Intern   Jan 2023 – Dec 2023
Elastic Path   *Vancouver, BC*
- Designed microservices in **Go** to build a robust backend system for e-commerce platforms.
- Achieved a **99% reduction** in propagating external service updates by optimizing cache invalidation in the API gateway through event-driven communication (RabbitMQ).
- Scaled up stores to handle over **15 million API calls** per hour by implementing customizable rate limits.
- Collaborated with senior developers to implement Role-Based Access Control (RBAC) for users.

Software Developer Intern   May 2022 – Aug 2022
NetApp   *Vancouver, BC*
- Built a native engine that provides real-time analytics of NetApp's distributed file system.
- Developed a space-saving algorithm to track frequent and top-k elements in each data volume.
- Improved automated **Python** tests for ONTAP's high-availability (HA) storage nodes to ensure fault tolerance.
- Pinpointed software defects and worked alongside QA on solutions and implementation.

Undergraduate Research Assistant   Jan 2021 – Jul 2022
The Reliable, Secure, and Sustainable Software Lab   *Vancouver, BC*
- Engineered an unsupervised ML solution in Python to refactor Java monolithic applications into microservices.
- Assembled a clustering tool to provide users with different microservice recommendations of their application.
- Received **Distinguished Paper Award** at the 38th International Conference on Software Maintenance and Evolution (ICSME), 2022 (23% acceptance rate).
- Awarded **Project of the Year** at IBM's CASCONxEVOKE 2022 Conference.

PROJECTS

Autonomous Sailboat
- Led a team to develop a website for real-time monitoring of an autonomous sailboat.
- Developed a full-stack web application using React, Redux, and MongoDB on the Next.js framework, featuring dashboards for diagnostic analysis and interactive maps to showcase computed paths and obstacle navigation.
- Fostered a team environment emphasizing iterative development, collaboration, and documentation.

Neural Notes
- Designed an Android app in Java that uses ML to play back musical scores from a photo capture.
- Trained a CRNN model using PyTorch to analyze and categorize musical notation.

TECHNICAL SKILLS

Languages: Go, Python, Java, TypeScript, JavaScript, SQL (Postgres), C++, C, HTML/CSS
Frameworks: Redis, RabbitMQ, Redux, React, Node.js, Flask, FastAPI, Cucumber.js, Playwright, nginx, Next.js
Developer Tools: Git, Docker, Kubernetes, Datadog, Sentry, VS Code, AWS, Google Cloud Platform