

EUNSONG KOH

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EDUCATION

Simon Fraser University

Bachelor of Science, Computer Science

Expected Graduation April 2027

Vancouver, BC

- **Relevant Coursework:** Database Systems, Systems Programming, Networking, Computational Data Science, Data Structures & Algorithms
- **Extracurriculars:** SFU DNS Club Dir. Communications & Multimedia, SFU WiCS Mentor & Workshop Lead

EXPERIENCE

Applied Research Engineer

Safety CLI Cybersecurity | Pre-Series A (Backed by First Round Capital & Kearny Jackson)

Jan 2026 - Present

Vancouver, BC

- Applied research on AI/ML methods for vulnerability detection in cybersecurity systems
- Revamping AWS-based pipelines and applying AI/ML based optimizations to improve vulnerability detection and review efficiency for the cyber team

Undergraduate Research Assistant

Reliable Systems Lab | Simon Fraser University

Jan 2026 - Apr 2026

Vancouver, BC

- Researching **LLM-based automated vulnerability discovery and repair** supervised by Dr. Steven Ko

Software Engineer Intern

Safety CLI Cybersecurity | Pre-Series A (Backed by First Round Capital & Kearny Jackson)

May 2025 - Dec 2025

Vancouver, BC

- Built a **full-stack vulnerability analysis platform** using **FastAPI + React**, leading 90% of frontend development; accelerated security reviews 4x and improved team productivity 16%
- Engineered and productionized a **high-performance call-graph traversal algorithm** for vulnerability detection (50k+ nodes in under 1 second) in the data engine, enabling scalable, real-time system analysis
- Prototyped and evaluated decoder and **Hugging Face Transformer** models on unstructured data, applying **distributed training on AWS EC2** with **Accelerate and Ray Train/Tune** to reduce training time by 25%; Developed a **ML-powered data licensing and evaluation pipeline using LangChain and LangSmith**, achieving 92% evaluation accuracy

Undergraduate Research Assistant

Reliable Systems Lab | Simon Fraser University

May 2025 - Aug 2025

Vancouver, BC

- Co-authored research on **LLM-based automated vulnerability discovery and repair** supervised by Dr. Steven Ko
- Applied advanced **prompt engineering** techniques to improve model-guided detection by 10%
- Developed **benchmarking pipelines** for Rust vulnerabilities using LangChain and LangSmith, increasing detection coverage and reliability

Software Developer & Product Manager

Hope Health Action | Simon Fraser University

Jan 2025 - Apr 2025

Vancouver, BC

- Designed and implemented a **user history tracking endpoint** and corresponding **React/React Native dashboard** as part of a research initiative under Dr. Brian Fraser, developing a NGO-backed app on the **Google Play Store**
- Redesigned core **Django** data models with **PostgreSQL** and refactored backend and **React/React Native** systems, improving query efficiency by **15%** and frontend performance and maintainability by **13%**
- Authored **PRDs**, designed **Figma** prototypes, and collaborated with developers and clients to deliver **3 new features** on schedule

Software Engineer Intern

Kelowna Software Ltd.

May 2024 - Aug 2024

Remote

- Refactored and optimized legacy code, increasing **performance by 5%**, improving **readability by 15%**, and enhancing maintainability and test coverage (+20%) using **XUnit** and **Jasmine** across internal and client software
- Automated **large-scale ML data pre-processing** using **Python, Pandas**, and **Dask**, reducing data sorting and transformation time by **70%**
- Developed back-end systems in **C#/.NET Core** and client-facing features with **TypeScript/Angular** for **1000+** users

PROJECTS

AutoJob | AWS Step Functions, DynamoDB, Bedrock, EventBridge, GitHub Actions

- Built a **serverless job tracking platform** with AWS Step Functions and DynamoDB, creating scalable pipelines for automated notifications and state management
- Integrated **AWS Bedrock** for relevance-based classification, **EventBridge** for scheduled notifications, and automated **CI/CD pipelines with GitHub Actions** for reliable large-scale execution

UWaterloo Hack the North 2025: vybes - Link | AWS Lambda, DynamoDB, API Gateway, Next.js, OpenCV, Groq API

- Built a **live crowd sentiment and music recommendation engine** using OpenCV and Groq API, fully integrated with DJ software
- Developed a **Next.js dashboard with WebSockets** via AWS Lambda, DynamoDB, and Gateway for real-time audience voting and analytics

TECHNICAL SKILLS

Languages: C, C++, C#, Python, Java, SQL, JavaScript, TypeScript, Swift, HTML/CSS

Frameworks/Libraries: .NET, Angular, React.js, Next.js, Redux, Django, JUnit/XUnit, Pandas, Bootstrap, TailwindCSS, SwiftUI

Developer Tools/Technologies: AWS, Azure, LangChain, HuggingFace, MongoDB, Docker, Git, Github Actions, Figma