

Ju Hong Kim

linkedin.com/in/ju-hong-kim-zaku | zakuarbor.github.io/blog/
github.com/zakuArbor

EXPERIENCE

AMD - Diagnostic Design Intern

May 2025 - August 2026

- TBA
- TBA
- **Technologies:** Linux, C++

Ericsson - Software Developer Intern

May 2024 - April 2025

- Developed an interactive dashboard to visualize resource consumption on software running on Linux-based radios, enabling the analysis of code changes on internal radio startup times, CPU, and memory consumption
- Integrated an internal analytics framework to automate test failure tracking, correlating failures with known errors and enhancing visibility through Kibana dashboards

Blackberry - Systems Software Developer Intern

May 2023 - August 2023

- Developed a Protobuf plugin for Fluent Bit in C, optimizing data serialization and achieving a 50% reduction in data size, while also decreasing transmission time per message
- Optimized performance of the Protobuf plugin by leveraging Callgrind, perf, and flamegraphs for performance analysis, significantly improving execution efficiency

Blackberry QNX - Student Support Developer

January 2022 - April 2022

- Delivered QNX and POSIX C debugging and design support to clients, helping resolve development blockers
- Assisted with compilation, API/utility usage, networking, and debugging for QNX and POSIX C environments
- Used GDB and Valgrind to debug memory and execution issues and leveraged Wireshark and tcpdump for network analysis

IBM - Db2 Build DevOps Developer

July 2020 - August 2021

- Improved developer efficiency by creating Perl & Python-based build automation tools, optimizing the development pipeline
- Assisted in transitioning legacy build infrastructure to a secured zone by identifying and resolving Perl & C dependencies and adapting scripts to align with new constraints
- Mentored 4 junior developers and interns, improving team efficiency and knowledge retention

IBM - Build DevOps Intern

May 2018 - August 2019

- Managed builds across UNIX/Linux platforms running on 32/64-bit CPU architectures (x86, Itanium, PowerPC, SPARC), isolating breakages across complex multi-commit build histories
- Enhanced build infrastructure and Perl-based automation tools to provide developers with stable, up-to-date code
- Led server migration efforts, coordinating the setup and validation of all Perl and PHP programs to ensure smooth transition with minimal downtime and improved deployment reliability

SKILLS

- **Programming:** C, C++, Python, Perl, Bash, Java
- **Web Design:** HTML, CSS, Javascript, PHP, JQuery, React, NodeJS
- **Database:** SQL, NoSQL (MongoDB)
- **OS:** Linux, UNIX, QNX

PROJECTS

Desktop Passwordless Continuous Authentication System

- Developed an Android-based Bluetooth authentication system, replacing passwords with seamless desktop login
- **Technologies:** C, Kotlin, Linux Bluetooth Library Stack (BlueZ), Linux PAM, D-Bus

Student Enrollment & Instructor History Analysis

- Designed a website that analyzes enrollment trends, generating data visualizations for educational insights
- **Technologies:** Perl, Python, React

16-bit Assembler Implementation

- Developed an assembler in C for a 16-bit architecture, converting Hack assembly to machine code

EDUCATION

Carleton University

September 2021 - Present

- HBMath in Mathematics

University of Toronto Mississauga

September 2015 - June 2020

- HBSc in Computer Science with Distinction, Overall CGPA: 3.35/4