

Ju Hong Kim

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EXPERIENCE

Carleton University - Linear Algebra II Learning Assistant Facilitator October 2022 - Present

- Develop full solutions to sample problems on PowerPoint for future video recording to increase student success

Carleton University - Calculus Teaching Assistant September 2022 - Present

- Guide a class of 47 engineering students on how to solve and approach problems in Calculus

Blackberry QNX - Student Support Developer January 2022 - April 2022

- Advised clients on their technical problems from debugging to design relating to QNX, POSIX C, and Momentics IDE to enable customers to remove blockers in their development cycle
- Technical issues ranged from compilation, API/utility usage, networking, and debugging crashes
- **Languages, Tools, and Environment:** C, SVN, Git, GDB, QNX, and Momentics

IBM Canada - Db2 Build Infrastructure DevOps Developer July 2020 - August 2021

- Increased productivity of developers by developing, debugging and improving build infrastructure and automation tools to better facilitate the development pipeline
- Mentored interns and junior employees on their work and programming knowledge to further their career and performance
- **Languages, Tools, and Environment:** Perl, Node.js, Python, C, Linux/UNIX, Git, Clearcase, and Jenkins

IBM Canada - Db2 Build Infrastructure Intern May 2018 - August 2019

- Monitored Unix and Linux nightly and special builds for Db2 to ensure builds are released regularly
- Improved build infrastructure and automation tools to ensure developers have the latest stable code to improve on
- Supervised in the migration of a server to remove blockers and ensure migration was completed with minimal downtime
- **Languages, Tools, and Environment:** Perl, C, PHP, Clearcase, Linux/UNIX, Jenkins, and Buildforge

Ericsson - Student Assistance to the Standards Advisor February 2015 - June 2015

- Assisted in configuration and planned migration of a server
- Maintained and debugged servers and programs to ensure services are available

PROJECTS

- Led a team of students to design a passwordless continuous desktop authentication by using a smartphone as a Bluetooth authenticator to replace password-based authentication for convenience
 - Lead developer on the authentication module and background process to continuously authenticate the smartphone via Bluetooth
 - Aided in the development of the Android app to communicate with the desktop via Bluetooth
 - **Technologies and Languages:** C, Kotlin, Linux Bluetooth Library Stack (BlueZ), Linux PAM, and D-Bus
- Implemented an assembler, written in C, for a 16-bit architecture to convert Hack assembly to machine code
- Collaborated on a front-end prototype of an existing chemical research patent web app to improve UX by making the UI intuitive and allow users to accomplish their tasks with a minimal amount of actions
 - **Technologies and Languages:** React, Node.js, and SQL
- Implemented a progress report card generator as a potential product for a school to be mobile-friendly and intuitive
 - **Technologies and Languages:** PHP, HTML, CSS, and Javascript

SKILLS

- **Systems Programming:** C with exposure to C++ and Rust
- **Web Design:** HTML, CSS, Javascript, PHP, JQuery, React and NodeJS
- **Database:** SQL and NoSQL (MongoDB and Firebase)
- **Scripting Languages:** Perl, Bash, and Regex
- **Other Programming Languages:** Python and Java
- **Markup and Typesetting Languages:** Latex and Markdown
- **Version Control:** Git and Clearcase

EDUCATION

Carleton University September 2021 - Present
HBSc in Mathematics

University of Toronto Mississauga September 2015 - June 2020
HBSc in Computer Science With Distinction, Overall CGPA: 3.35/4