Dohee Kim

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Education

Sheridan College Oakville, ON
Advanced Diploma in Software Development and Network Engineering (Co-op) *Jan. 2023 – Dec. 2025*
Relevant Courses: .Net Technologies using C# (90%), Linux/UNIX-Operating Systems (95%), Advanced Java Frameworks (96%)

Technical Skills

Languages: Python, Java, C++, C#, SQL, JavaScript, TypeScript, PHP
Frameworks/Tools: Spring Boot, Flask, React, Angular, Bootstrap, Git, Linux, MQTT, TensorFlow
Databases/Cloud: MySQL, PostgreSQL, MariaDB, MongoDB, AWS, Azure

Experience

Software Developer Co-op & Contract Part-time Aug. 2025 – Nov. 2025
UHN & Center for Applied AI, Sheridan College *Oakville, ON*

- Built a modular Week–Day–Level–Step content system using **Next.js**, **React**, and **TypeScript**.
- Implemented level placement logic (auto-promote/demote) based on previous week's average score; designed **Supabase (PostgreSQL)** tables and integrated them with a **Next.js API** backend.
- Wrote **unit tests** for API logic and React components using **Jest** to ensure features worked as intended.

Software Developer Co-op & Contract Part-time Jan. 2024 – May 2024 / May 2025 – July. 2025
Locomobi & Center for Applied AI, Sheridan College *Oakville, ON*

- Developed a smart parking system in **Python** using machine learning and object detection techniques to accurately track vehicle occupancy
- Designed **SQL database schemas** to optimize data pipelines for vehicle details, enabling accurate tracking of parking durations and enhancing system scalability
- Collaborated effectively in a team environment, leveraging **Git** for version control to streamline workflows and ensure seamless integration of code changes
- Developed and optimized a fuzzy logic-based algorithm to match scanned license plates against entry records

Develop at Ubisoft Mentorship Program Nov. 2024 – Jan. 2025
Ubisoft *Toronto, ON*

- Participated in 1-on-1 mentorship sessions to enhance **C++** programming skills while receiving guidance on career development in the tech industry
- Proactively sought feedback and continuously improved technical skills during mentorship

Software Developer Co-op Sep. 2024 – Dec. 2024
Korah & Center for Applied AI, Sheridan College *Oakville, ON*

- Developed AI algorithms in **Python** utilizing State Machine architecture to predict hospital bed availability, reducing transfer decision time by 25%.
- Created a simulation animation with Python and Pygame to visualize patient transfers across hospitals, streamlining operational insights.
- Implemented unit tests to validate simulation accuracy and supported deployment processes.
- Collaborated with healthcare professionals to gather requirements, ensuring alignment with real-world operational needs.

Projects

Smart Waste Management System | *Angular, Spring Boot, MQTT, MariaDB, Raspberry Pi*

- Selected as 1 of 10 projects out of 49 teams for the 2025 Sheridan Capstone Showcase.
- Developing a smart waste monitoring system that reduces bin overflow by sending real-time alerts to facility staff.
- Built an **Angular** frontend to visualize sensor data and manage bin statuses through a responsive dashboard.
- Implemented **RESTful APIs** and backend logic using **Spring Boot**, deployed on a **Raspberry Pi**.
- Configured MQTT protocol to enable real-time communication between Arduino-based sensors and the Raspberry Pi.

Movie Collection Management System | *Python, Flask, PostgreSQL*

- Developed a robust backend system for managing movie collections using **Python Flask** and **PostgreSQL**, implementing CRUD operations for efficient data management.
- Integrated the Movie Database **RESTful API** to provide users with real-time access to movie details, enhancing user engagement.

Data Encryption Management (Bell Geekfest Hackathon) | *Java, Spring*

- Collaborated with a team to design and implement a secure data encryption application using AES encryption techniques.
- Built features using Spring framework, ensuring data confidentiality and protection for sensitive user information.