Jiwon (Alex) Lee

Waterloo, Canada | a55lee@uwaterloo.ca | LinkedIn | GitHub | Portfolio

SKILLS

Languages: Python, Java, C/C++, C#, Typescript, Javascript, R, SQL, Bash
Frameworks/Libraries: React, Next.js, Express, Pandas, Matplotlib, NumPy, SciKit, TensorFlow, OpenCV
Tools: MySQL, MongoDB, PowerBI, Git, Linux, AWS, Make

EXPERIENCE

Data Analyst   May 2025 - August 2025
Daechitop English Institute   *Seoul, Korea*
- Collected and cleaned student performance data using **Excel**; performed exploratory analysis to design and offer adaptive education system that maximizes study efficiency.
- Reduced working time by **75%** by developing an automation tool using **Excel VBA** and **PyAutoGUI** to streamline repeated work, enabling instructors to focus on personalized teaching.
- Increased average test scores by **12%** by creating **PowerBI** dashboards for **data-driven insights**, with statistical modeling and efficient data pipelines.

Database Developer   January 2025 - April 2025
Association of Korean Canadian Scientists and Engineers   *Waterloo, ON*
- Led the **team of 6** to develop the official AKCSE website using **Express** and **MongoDB**, improving accessibility to career and academic help resources for University of Waterloo students.
- Optimized query efficiency and database scalability by **300%** through implementation of **dynamic CRUD**, while implementing **authentication** and access control features to strengthen data security.
- Increased event participation by **150%** by demonstrating quality teamwork and leadership by collaborating with a **team of 5**, focusing on specialization to deliver higher quality outcomes.

Finance Analyst   September 2024 - December 2024
Association of Korean Canadian Scientists and Engineers   *Waterloo, ON*
- Conveyed accountability and organization skills by analyzing and managing the cash flow of **$1,000+** annual income and expenses using **Excel**.
- Coordinated with the **team of 16** to exercise strategized marketing while promoting academic resources such as Open House, and Resume Critique for the greater Kitchener-Waterloo community.
- Reduced **10%** of unnecessary expenditures by writing annual financial reports to identify inefficiencies and recommending actionable strategies for better financial management of the organization.

PROJECTS

AI/ML Football Analysis | *Python, OpenCV, Pandas* | GitHub | Link
- Built a football analysis system using **OpenCV** to track key metrics such as ball possession and player speed.
- Trained a **YOLOv11** model with **10,000+** images, achieving **0.877** mAP50 with 35.7 ms per-frame latency.
- Deployed services on **AWS EC2** with **SQS**, and built a **Next.js** web app for video upload and real-time analysis.

Academic Management System | *Spring, Javascript, HTML/CSS, Bootstrap, MySQL, EC2* | GitHub
- Built a full-stack academic management web app of **20+** pages with **50+** users using **Spring** and **MySQL**.
- Ensured reliability with **200+** test cases and resolved issues such as multiple PK, time zone mismatches, etc.
- Reduced query response time by **30%** using nested SELECT statements to handle grouped ID increments.

Personal Portfolio Website | *Typescript, React, SASS* | GitHub | Link
- Developed a personal portfolio website using **Typescript** and **React** to showcase professional skills and projects.
- Enhanced personal brand visibility and resulted in **150%** increased networking and interview opportunities.
- Designed a modern portfolio website using **SASS**, including responsive layouts, for better user experience.

EDUCATION

University of Waterloo   September 2023 - April 2028
Bachelor in Data Science, Minor in Combinatorics and Optimization

Relevant Coursework: Data Structures, Algorithm Design, Statistics, Sampling Design, Linear Algebra, OOP
Scholarship: President's Scholarship of Distinction - $2,000 scholarship for students with average over 95%