

# Jiwon Jeon

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## SKILLS

- **Programming Languages:** C++ | C# | JavaScript | TypeScript | Java | SQL | Python | Kotlin
- **Frameworks & Libraries:** Node.js | React.js | .NET | Nest.js | jQuery | GraphQL | Sequelize | Google Test(gtest) | JUnit
- **Databases:** SQL | MySQL | MS SQL Server | PostgreSQL
- **Technical Programs:** Visual Studio | Visual Studio Code | Eclipse
- **Tools & Concepts:** Git | GitHub | GitLab | RESTful APIs | WebSocket | Agile methodologies | Systems Architecture | SSL/TLS
- **Cloud Systems & DevOps:** AWS EC2 | RDS | Azure | GitHub Actions | CI/CD
- **AI & Machine Learning:** Prompt engineering | Reviewing and validating AI-generated outputs

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## PROJECT EXPERIENCE

### SafeCam - Real-time Object Detection System [In Development]

Personal Project | Calgary, Alberta

- Designed comprehensive system architecture integrating **React.js**, **Nest.js**, and **Python**-based **YOLO** object detection
- Created detailed wireframes and user flow diagrams in **Figma**, focusing on intuitive security monitoring interface
- Implemented responsive frontend with Tailwind **CSS** for clean, modern UI components and smooth animations
- Developed real-time video streaming and alert system using **WebSocket** for instant detection notifications
- Built mobile-responsive dashboard with dynamic data visualization for monitoring detection events

### Maze Game – Text-Based AI Game

November 2024

Personal Project | Calgary, Alberta

- Designed and implemented a text-based maze game in **Python** with a 5x5 randomly generated maze and intuitive player controls, enhancing the user experience with real-time updates using ANSI escape codes.
- Developed an **AI-based pathfinding feature** to suggest the shortest route, leveraging algorithms to improve decision-making and gameplay.
- Built modular functions for maze generation, user interaction, and AI hinting, ensuring maintainability and scalability while managing the project with Git for clean version control workflows.

### Noisy Hospital – Text-Based Adventure Game

September 2024 – October 2024

University of Lethbridge | Calgary, Alberta

- Developed a text-based game in **C++**, implementing core mechanics and puzzles to create an engaging player experience.
- Implemented **test automation** using **Google Test (gtest)**, ensuring reliable gameplay and efficient bug resolution.
- Refined file path handling to ensure cross-platform compatibility, reinforcing adaptability to different operating environments

### MS Teams Auto Recording System

January 2024 – April 2024

Bow Valley College | Calgary, Alberta

- Designed and implemented an automated recording system in **Node.js** with **GraphQL**, improving productivity and minimizing manual setup for users.
- Built a user-friendly interface with **React** to streamline the management of recording settings, showcasing skills in user-focused design and support.
- Implemented **GraphQL** queries to streamline data retrieval, optimizing performance by minimizing **API** requests.

### Food Calories Explorer

January 2024 – April 2024

Bow Valley College | Calgary, Alberta

- Developed an Android app using **Kotlin** that allows users to track, record, and calculate daily calorie intake by integrating a **RESTful API** for food data retrieval.
- Built an intuitive UI using **Android Studio** with **Kotlin** to provide users with a seamless experience, increasing user engagement with clear nutritional information.

### MMA Fighter Prediction Tracker

September 2023 – December 2023

Bow Valley College | Calgary, Alberta

- Optimized the system's performance using **Node.js** for backend logic and **React.js** for dynamic front-end rendering, improving overall user experience.
- Implemented **MSSQL** database schema for efficient data retrieval, utilizing data modeling principles to design a schema that supports complex queries, enhanced storage efficiency, and minimized query times through effective indexing.

### Connect Four Game

June 2023

Bow Valley College | Calgary, Alberta

- Designed and implemented a console-based Connect Four game in C#, supporting both single-player (with AI) and multiplayer modes for a dynamic user experience.
- Developed a modular architecture with interfaces and abstract classes, separating player types (human and AI) for flexibility and scalability.
- Built custom algorithms to efficiently detect winning conditions (vertical, horizontal, diagonal), ensuring robust error-handling and input validation.

#### Ther Genius Card Game

July 2022 – October 2022

Hanghae | Seoul, South Korea

- Developed a real-time multiplayer card game using Node.js, Express, MySQL, and Socket.io, enabling smooth gameplay and interactive player experiences.
- Conducted technical code reviews, providing feedback to maintain high-quality standards and ensure consistent implementation of best practices.
- Deployed the game on AWS EC2 with RDS for secure data management, automating server updates using GitHub Actions for seamless deployments.

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#### ADDITIONAL EXPERIENCE

##### AI Coding Trainer

October 2024 – Present

Outlier | Remote

- Analyzed AI-generated responses to ensure high quality and user relevance, strengthening problem-solving and analytical skills valuable for troubleshooting in IT support.
- Assessed and optimized response processes, contributing to system reliability.

##### AI Data Trainer

October 2024 – Present

Aligneer | Remote

- Applied data management and quality control techniques to ensure that datasets were optimized for AI model development, contributing to more efficient data pipelines and robust analytics.

##### Tech Sales Representative

October 2016 – January 2019

InkTec | Ansan, South Korea

- Delivered technical support and managed customer relationships, emphasizing customer service skills and responsiveness—crucial qualities for IT support roles.
- Coordinated solutions for technical challenges, enhancing troubleshooting abilities and communication skills.

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#### EDUCATION

##### Bachelor of Science in Computer Science

September 2024 – Present

University of Lethbridge, Calgary Campus | Calgary, Alberta

- Current Co-operative Education Student
- **Relevant Courses:** Discrete Structures, Practical Software Development, Computer Architecture

##### Diploma in Software Development

January 2023 – April 2024

Bow Valley College | Calgary, Alberta

- **GPA:** 3.92/4.00
- **Awards:** Women Pivoting in Tech Entrance Bursary (2023), Mikhail Kassam and Farzana Bharwani-Kassam Software Development Diploma Award (2023), Jason Lang Scholarship (2023)
- **Relevant Courses:** Relational Databases, Object Oriented Programming, Algorithm and Data Structure, Web Programming, Project Management in Software Development

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#### CERTIFICATION

**AWS Certified AI Practitioner** – Amazon Web Services Training and Certification

November 2024

**AWS Certified Cloud Practitioner** – Amazon Web Services Training and Certification

November 2024

**Cisco Networking Essentials** - Cisco | San Jose, California

June 2023

**Hanghae Bootcamp** - Hanghae | Seoul, South Korea

July 2022 – October 2022

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#### VOLUNTEER EXPERIENCE

##### Data Support

July 2023 – September 2023

Bow Valley College | Calgary, Alberta

- Utilized effective search techniques and Excel tools to locate and verify contact information of decision-makers for 90 companies, ensuring data accuracy and reliability.

##### Coding Lesson Translation

September 2022 – November 2022

Nomad Company | Seoul, South Korea

- Translated coding lessons for the development of an Airbnb application, covering both backend technologies (Python, Django, Django REST Framework, and Graphene GraphQL) and frontend technologies (React.js, Chakra UI, and Render) from English to Korean.