Eunie (Eunheui) Jo

Waterloo, Ontario | (519) 781-7638 | iameuniejo@gmail.com | LinkedIn

PROFESSIONAL SUMMARY

- Experienced Software Engineer with expertise in backend development, cloud computing, and building scalable software solutions, proficient in C#, ASP.NET, Python, and C++.
- Skilled in designing and optimizing scalable architectures for multi-tenant web services and deploying real-time, data-driven dashboards using InfluxDB and Grafana.
- Proficient in modern software development practices, including **REST APIs**, **MVC architecture**, and front-end development with **React**.
- Hands-on experience with **cloud infrastructure** (Azure, AWS) and automating deployments through **CI/CD pipelines** using **GitHub Actions**.
- Dedicated to mastering new technologies, delivering high-quality software solutions, and ensuring clean coding standards through code reviews and rigorous testing.

SKILLS

HTML/CSS/JavaScript ASP.NET/MVC AWS (EC2, S3, Route53)

C# SQL/NoSQL/InfluxDB Azure (Virtual Machines, App Services)

Python Web Services Version Control (Perforce/Git)
C++ REST APIs Linux (Tizen Framework)

PROFESSIONAL EXPERIENCE

Software Engineer, VARLab - Virtual and Augmented Reality Lab

Sep 2024 – Current

Development of Educational Chatbot Service

- Developed a **chatbot server using educational material embeddings** and **RAG** (Retrieval-Augmented Generation) technology for enhanced interaction and knowledge retrieval.
- Built and managed a **Python-based backend server**, ensuring system reliability and performance.
- Designed and implemented a **React-based frontend** to provide a seamless user experience.

Sensor Data Integration and Real-Time Visualization in XR

- Deployed an **InfluxDB server** on Azure and implemented a **Grafana dashboard** for real-time sensor data monitoring.
- Built an interactive **XR dashboard** on the Tilt Five platform for immersive data visualization and analysis.

AI Software Engineer, Smart Center

May 2024 – Aug 2024

Sensor Data Processing and ML Model Development

- Conducted **sensor data processing and analysis** from a manufacturing environment, extracting critical insight and detecting anomalies.
- Developed and optimized **machine learning models** to address automotive manufacturing challenges.

Software Engineer, Samsung Electronics, South Korea

Feb 2012 - July 2022

Speech Recognition Solution Integration and Development

- Developed **middleware for speech recognition**, handling voice data acquisition, signal preprocessing, and embedded ASR for challenging environments.
- Integrated the solution into **embedded systems** with real-time processing, resolving compatibility issues as needed.
- Conducted comprehensive testing and validation, improving **recognition accuracy**, **response time**, and **noise robustness** using diverse datasets and evaluation methods.

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SOFTWARE PROJECT

Clinical Encounter Notes App

GitHub: https://github.com/euniej/encounter-note

Tech Stack: C# programming, Win Forms for user interaction, regex patterns, SQL.

- Created a comprehensive application to streamline clinical encounter note management.
- Features include efficient creation, editing, reading, and deletion of patient encounter records stored in an Azure SQL Database.

Order Management and Invoicing System

GitHub: https://github.com/euniej/order-management

Tech Stack: HTML, CSS, JavaScript, Node.js and Express, MongoDB, Deployment on AWS EC2

- Designed and implemented a user-friendly web application for efficient customer ordering
- Implemented features to capture essential customer information and generate detailed invoices.

EDUCATION

Conestoga College - Computer Programming & Analysis

2022-Present

Waterloo, Ontario, Canada

Korea University - Master of Engineering: Electrical Engineering,

Graduated in 2012 | Seoul, South Korea

Chungbuk National University - Bachelor of Engineering: Electrical and Computer Engineering, Graduated in 2007 | Cheongju, South Korea

PATENT

Eunheui Jo, 2019, Electronic device and method for controlling the same, and storage medium, Korean Patent 1020190152132, filed on November 25, 2019.

Eunheui Jo, 2014, Object recognition apparatus and control method thereof, Korean Patent 1020140030537, filed on March 14, 2014, and issued on January 05, 2021.

VOLUNTEER EXPERIENCE

Administrative Volunteer

Jul 2023 - Aug 2023

YMCA Summer English Conversation Circle, Kitchener, ON

Customer Service Voluntary

May 2023 - Jun 2023

Mission Thrift Store, Kitchener, ON