

JongIn Lee

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Education

Purdue University

B.S. Computer Science major, Software Engineering & Machine Learning Track
Accounting and Mathematics minor

Expected Dec 2026
West Lafayette, IN

Cumulative GPA: 3.42/4.0; Dean's list for 3 consecutive semesters & Semester Honors in Spring 2024

Relevant Coursework: Data Structure and Algorithm, Software Testing, Software Engineering, Compilers Principles & Practice, Intro to AI, Data Mining & Machine Learning, Intro Analysis Algorithm, Web Info Search & Management

ST.MARY'S INTERNATIONAL SCHOOL

Cumulative GPA: 3.84/4.0, IB Full Diploma, Japanese and English Bilingual Certificate

Sept 2013 - May 2023
Tokyo, Japan

Work Experience

UnChain - Machine Learning Developer | TypeScript | (Remote, Tokyo, Japan)

Dec 2025 - Current

- Built AI-powered web features in TypeScript, integrating **Google AI APIs** into production workflows.
- Implemented **Docker-based CI/CD** (build/test/deploy), reducing deployment friction and improving release reliability (reported ~30% efficiency gain).
- Collaborated with engineers to debug production issues, improve pipeline stability, and standardize developer tooling.

Project Experience

Muika – Offline AI Chatbot | Python, AWS, LLM | Founder

Nov 2025 - Current

- Built and deployed a **desktop-native offline AI chatbot** with a configurable persona system; optimized inference pipeline to improve response **latency by ~60%** through model/runtime tuning and performance profiling.
- Designed a serverless backend for user/account + item metadata using **AWS Cognito Hosted UI, API Gateway, Lambda**, and **DynamoDB**; implemented secure auth flows and scalable data access patterns.
- Engineered maintainable project infrastructure: **Git** branching, automated builds, and CI checks to support rapid iteration and release quality.
- Led a small cross-functional effort with designers, translating product requirements into milestones, scope, and deliverables.

American Sign Language Practice Website | Python, TypeScript, Next.js, TensorFlow

Jan 2025 - Current

- Collected and labeled hand-sign samples; trained a **multi-class classification model** to recognize ASL alphabet gestures and **evaluated** performance using repeatable test splits.
- Implemented hand landmark extraction (MediaPipe Hands) and feature **normalization** to improve robustness.
- Built a **Next.js (TypeScript)** web app for real-time practice and feedback; implemented client-side inference flow and UI states for “test” and “record” modes.
- Deployed to **Vercel** with production build settings; documented setup and usage for public access and reproducibility.

Gravity Maze Simulation | Unity, C#, ShaderGraph

April - August 2025

- Developed a 3D puzzle environment with **multi-directional gravity** inspired by M.C. Escher.
- Built custom physics controllers, dynamic gravity shifting, and camera handling.
- Integrated **ShaderGraph** for depth-based visual effects and interactive gameplay mechanics.

Mini Compiler | C++

September - November 2025

- Implemented core components including **lexer, parser, symbol table**, and **AST generator**.
- Gained experience with grammar rules, tokenization, syntax trees, and compilation pipeline workflows.

Leadership & Extracurricular Experience

Purdue Japanese Student Association | CIL Head & Marketing Head

January 2024 - Current

- Coordinated event logistics for corporate seminars and served as primary contact for partner companies.
- Secured **over \$27,000 in sponsorships**, increasing organizational operating capacity and event scale.
- Designed high-engagement promotional materials, Instagram posts, and visual branding using **Canva**.
- Produced marketing reels and promotional content for local partner restaurants, expanding community collaboration and boosting online engagement.

Technical Skill

Programming Languages: Python, TypeScript/JavaScript, C++, Java, C#, SQL, HTML/CSS, R

Frameworks: Next.js, React, Django, PySide6, TensorFlow, React Native, Unity, Blender, Canva

Cloud/DevOps: AWS (Cognito, Lambda, API Gateway, DynamoDB, S3), Docker, Git, CI/CD pipelines, Firebase

ML: Model training, evaluation, feature engineering, inference optimization, data labeling pipelines

Languages: Japanese (Fluent), English (Fluent), Korean (Conversational)