

Seyeon Park

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EDUCATION

University of Washington <i>B.S. Computer Science and Software Engineering, Minors in Data Science and Music</i>	GPA: 3.75 Expected Aug 2026
<ul style="list-style-type: none">Leadership: Vice President, Inclusive AI; Officer, Association for Computing Machinery (ACM)Affiliations: TrickFire Robotics; Google Developer Group; Institute of Electrical and Electronics Engineering	

EXPERIENCE

Software Engineering Research Assistant <i>Autonomous Drone Systems Project</i>	Dec 2025 – Present Bothell, WA
<ul style="list-style-type: none">Validated autonomous flight safety behaviors using Mission Planner (ArduPilot), testing Return-to-Home scenarios.Configured flight controllers and failsafe parameters to improve mission reliability.Developed autonomous deployment workflows migrating from SpeedyBee F405 to Matek H743 flight controller.Led cross-functional electrical and mechanical team to resolve hardware-software communication issues.	
Computer Science & Math Tutor <i>Quantitative Skills Center</i>	Sep 2025 – Present Bothell, WA
<ul style="list-style-type: none">Improved student grades by 15% for cohort of 35 through weekly tutoring in algorithms and data structures.Taught BFS, DFS, articulation points, sorting algorithms, and Huffman coding using Java, Python, and C++.	
Undergraduate Researcher <i>DAIS Lab</i>	May 2025 – Nov 2025 Bothell, WA
<ul style="list-style-type: none">Summer Research Fellow contributing to DeepTracer 3.0, a generative AI system for protein structure prediction.Evaluated diffusion-based prediction pipelines achieving 1.74 Å RMSD and 75% coverage.Implemented HDF5 compression reducing dataset size by 20× and improving training speed by 14%.	
Technical Research Intern <i>Digital Scholar Program, School of IAS Lab</i>	Jul 2025 – Aug 2025 Bothell, WA
<ul style="list-style-type: none">Restored abandoned QuikChem 8500 analyzer by resolving valve and heater failures, achieving full functionality.Resolved Omnion software–hardware timing misalignment by reconfiguring channels, enabling stable 37 °C runs.Built SOPs, templates and automated CSV workflows for orthophosphate analysis, reducing processing time 30%.Developed data visualizations presenting experimental findings on system restoration at STEM faculty meeting.	

PROJECTS

Backend Data Pipeline for Agent-Based Simulations <i>Python, C++, NumPy, JSON/CSV</i>	
<ul style="list-style-type: none">Built Python-based data pipeline to parse and transform MASS CUDA simulation logs into structured datasets (CSV/JSON) for downstream analysis and visualization.Designed parsing logic to extract timestep, grid position, and state values from debug and simulation output.Defined standardized data schema enabling reusable workflows for scientific visualization and analysis.	
Harmonique <i>React, TypeScript, TailwindCSS, Tone.js, Meyda.js</i>	
<ul style="list-style-type: none">Developed real-time audio analysis platform supporting emotion recognition pipelines using React architecture.Implemented speech emotion recognition using audio preprocessing and LSTM-based neural networks.Built Supabase SQL backend for storing and querying inference results.	
Cultural Culinary Adventure <i>React, PHP, MySQL</i>	
<ul style="list-style-type: none">Built full-stack web application enabling culturally-based recipe discovery with dynamic filtering and relational database backend.Implemented filtering interfaces and relational database schema with secure prepared statements.Deployed application on Linux server using SSH, Apache, PHP, and MySQL.	

TECHNICAL SKILLS

Languages: Java, Python, C++, SQL, JavaScript, TypeScript, PHP
ML/Data Science: PyTorch, NumPy, pandas, Matplotlib
Frameworks & Libraries: React, Node.js, TailwindCSS, shadcn/ui, Java Swing, Pygame
Databases: MySQL
Developer Tools: Git, GitHub, Bitbucket, Linux