

Seongwoo Choi

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EDUCATION

- Stanford Graduate School of Business** Stanford, CA
Stanford LEAD Certificate Program (Executive Education) March 2027 - March 2029
- University of Pennsylvania** Philadelphia, PA
Master of Science in Engineering in Artificial Intelligence; GPA: 4.0/4.0 August 2025 - June 2027
Courses: Artificial Intelligence, Natural Language Processing, Machine Learning for Data Science, Statistics for Data Science, Principles of Deep Learning, Technology Ethics and the Legal Landscape, GPU Computing for Machine Learning Systems, Computer Vision & Computational Photography
- University of California, Davis** Davis, CA
Master of Science in Computer Science; GPA: 3.71/4.0 September 2020 - December 2022
Courses: Deep Learning, Advanced Computer Architectures, Design and Analysis Of Algorithms, Data Analysis in R and Web Technologies, Machine Learning and Discovery, Distributed Databases, Software Engineering, Advanced Deep Learning
- University of California, Santa Cruz** Santa Cruz, CA
Bachelor of Science in Computer Science; GPA: 3.25/4.0 September 2013 - June 2017
Courses: Operating Systems, Data Structures and Algorithms, Abstract Data Types, Intermediate Programming, Advanced Programming in C++, Analysis Of Algorithms, Web Programming, Programming Languages

SKILLS SUMMARY

- Languages:** Python, SQL, Bash, TypeScript
- ML/AI:** Scikit, TensorFlow, Keras, PyTorch, Pandas, Numpy, Matplotlib, Seaborn
- Frameworks:** NextJS, LangChain/LangGraph, FastAPI
- Technologies:** Docker, Git, CI/CD, AWS EC2, Azure OpenAI Services, Microsoft Copilot Studio
- Platforms:** macOS, Ubuntu Linux, Windows
- Soft Skills:** Leadership, Writing, Public Speaking
- Spoken Languages:** Korean(Native), English (Fluent), Mandarin (Advanced), Spanish (Elementary)

EXPERIENCE

- AI Startups (Stealth) (Delaware C-Corps)** Remote / Abu Dhabi, UAE
Founder & CTO Jan 2026 - Present
 - Venture & Technical Leadership:**
 - Co-founding two early-stage AI technology companies operating in stealth, architecting proprietary multi-agent AI systems.
 - Architecting proprietary AI systems and serving as the lead technical expert for business operations, engineering strategy, and product development.
- Astra Tech** Hybrid - Abu Dhabi, UAE
Artificial Intelligence Business Unit (Full-Time) March 2026 - Present
 - Senior AI Engineer:**
 - Served in a critical and essential capacity, managing a cross-functional engineering team of 35 (PMs, backend/frontend engineers, ML engineers, and designers) to design and deploy AI solutions.
 - Led end-to-end development and implementation of the MVP for Botim's AI-powered customer support chatbot, unlocking capabilities for 150 million users.
 - Commanded a top-tier compensation package reflecting leading industry expertise and essential role within the organization.
 - Architected future extensibility with mini-app integrations to expand the chatbot's capabilities beyond core financial support use cases.
- LG CNS** Hybrid - Seoul, Korea Republic
Multi-Modal Intelligence Lab (Full-Time) September 2023 - March 2026
 - AI Research Engineer:**
 - Developed enterprise-grade generative AI and multimodal document intelligence solutions integrating LLM, RAG, and VLM systems.
 - Deployed in-house generative AI software on GitLab; managed software deployment for 10+ teams.
 - Engineered a Naive RAG application using Python, LangChain, and Azure OpenAI PTU for PDF information extraction.
 - Led Azure OpenAI Architecture Demonstration to executives from LG CNS and Microsoft Asia, showcasing deployment strategy and productivity applications.
 - Vision-Language Model (VLM) Parsing Pipeline Development:**
 - Designed and implemented a VLM parsing pipeline integrating DeepSeek OCR, Qwen VL 3-8B, and PaddleOCR-VL to extract text and tables from enterprise document images.
 - Developed a synthetic data generation system in Python using LLMs to augment VLM training data.

- Intel Corporation** Remote - Davis, CA
Graduate Student Internship in AI & Cloud Computing (Full-time) June 2022 - October 2022
 - AI Research Engineer & GPU Solutions Architect:**
 - Joined research to create a new algorithm in Graph Neural Networks in AVA Dataset using PyTorch Geometric.
 - Performed GPU analysis on cloud gaming workloads; used performance analysis methods and tools (vTune Profiler, Intel SoC Watch) to evaluate benchmarks.
- Computer Science Graduate Entrepreneurship Club at UC Davis** Hybrid - Davis, CA
Co-Founder of vAnalytix (Full-time) December 2021 - June 2022
 - Mobile Application Developer & Machine Learning Engineer:**
 - Created cross-platform mobile applications for vehicle health maintenance using TensorFlow to train models from OBD-II sensor data.

RESEARCH & OPEN SOURCE EXPERIENCE

- ResilientDB Distributed Databases (Blockchain) Research Team** Remote / Davis, CA
Graduate Student Researcher & Core Contributor February 2022 - June 2022
 - Original Scientific Contributions:**
 - Served as an initial technical contributor and researcher for Apache ResilientDB. Work was instrumental in the technology being listed as an Apache Incubator Project in October 2023.
 - DevOps & Technical Writing:**
 - Recompiled codebase for Linux and cloud environments; created technical documentation website using MkDocs to record architecture of NexRes (second generation UC Davis Blockchain).
- Davis Computer Architecture Research Team** Hybrid / Davis, CA
Graduate Student Research Assistant March 2022 - June 2022
 - C/C++ Programmer & Code Reviewer:**
 - Recompiled and debugged benchmark programs specialized in ARM, RISC-V, and x86 environments.
- Plug-In Hybrid Electric Vehicles Research Center at UC Davis** Hybrid / Davis, CA
Graduate Student Researcher February 2021 - June 2022
 - Machine Learning to Predict Charge Levels:**
 - Conducted predictive modeling research on EV battery charge levels leading to published papers; programmed geospatial analysis scripts.

PROFESSIONAL SERVICE & MEMBERSHIPS

- Program Committee (Workshops) / Invited Reviewer** Remote
Conference on Neural Information Processing Systems (NeurIPS) 2025, 2026
 - Peer Review Service:**
 - Invited to judge the work of peers in the field of Artificial Intelligence for one of the most prestigious machine learning conferences globally.
- Sigma Xi, The Scientific Research Honor Society** Global
Full Member Inducted July 2026
 - Exclusive Membership:**
 - Nominated and inducted at the "Full Member" tier based strictly on peer-reviewed recognition of original, outstanding scientific research contributions.

PUBLICATIONS (MANUSCRIPTS)

- Paper: Do KV Cache Compression Strategies Compose? An Empirical Study of Quantization and Token Eviction on Edge Hardware:** (Under Review at Transactions on Machine Learning Research - TMLR, 2026)
- Paper: Predictive Modeling of Charge Levels for Battery Electric Vehicles using CNN EfficientNet and IGTD Algorithm:** (Published on ArXiv in June 2022)
- Paper: A Machine Learning Approach to Predict the Charge Levels of Battery Electric Vehicles:** (Reviewing for submission - March 2022)
- Workshop Paper: Data Analysis on Netflix datasets to observe a trend of an actor in movie genres:** (Published on Research Gate in March 2022)
- Paper: Influence of Communication Among Shared Developers on the Productivity of Open Source Software Projects:** (Published on ArXiv in March 2022)
- Paper: A Deep Learning Technique using a Sequence of Follow Up X-Rays for Disease classification:** (Published on ArXiv in March 2022)

PROJECTS

- **Blockchain Financial Transaction Web Application:** Created a web application that decentralizes financial transactions allowing users to send money transfers securely with the integration of Cardano and BlockFrost.io APIs.
- **NVIDIA CUDA / OpenCL to Data Parallel C++ Migration:** Migrating/translating NVIDIA CUDA to Intel oneAPI DPC++ and improving performance using Intel libraries for a Korean customer.

HONORS AND AWARDS

- The Best Contributor to the UC Davis Graduate Group Computer Science Entrepreneurship Club - March 2022
- Certificate of Appreciation - United States Army Garrison Korea - January 2019
- Dean's Award from the University of California, Santa Cruz - September 2013 - June 2017

CERTIFICATES

- NVIDIA Certified Associate - GenAI LLM Certificate
- Google TensorFlow Developer Certificate
- Deep Learning Specialization - Deeplearning.ai / Coursera
- Machine Learning - Stanford University / Coursera