Alan Huynh

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Skills

Data Science: PyTorch, TensorFlow, Computer Vision, Time-Series Analysis, Statistical Modeling
Languages and Library: Python, SQL, JavaScript, C/C++, Java; Numpy, Pandas, Scipy
Tool: AWS, Azure, GCP, Docker, MongoDB, Firebase, Next.js, Django, Git (GitHub, GitLab), CI/CD, Linux

Experience

Software Engineer — Sep. 2024 - Present
Math Song Pty Ltd — *Melbourne, VIC*
- Developed a fullstack systems using Python and Django, improving automation processes and efficiency.
- Integrated multiple payment gateways via REST APIs, achieving 99.9% uptime and processing $200K+ in transactions monthly.

Machine Learning Engineer — Feb. 2024 - Sep. 2024
A.I.gorithm — *Melbourne, VIC*
- Built and optimized models for satellite imagery analysis using statistical techniques and feature engineering, achieving 90% accuracy in land use classification
- Processed and analyzed spatial data for over 50,000 Australian mesh blocks, enhancing decision-making for environmental and urban planning.

Data Scientist — Jan. 2022 - Jan. 2024
LUX Aerobot — *Melbourne, VIC | Hybrid*
- Researched and developed an aerial imagery-based early disaster detection system deployed in Canada, achieving 92% accuracy across multiple provinces.
- Implemented remote sensing segmentation models for high-altitude balloon imagery, optimizing geospatial analysis with 75% reduction in processing time.

Achievements

Green Battery Hack - First Place — Apr. 2024 - May 2024
MLAI Aus — *Melbourne, VIC*
- Led development and optimization of a predictive machine learning model for Australian energy spot market trading, securing first place on the innovation track.

Public Speaker - ML and AI — Various Dates
DDD, AICamp — *Various Locations*
- Presented on machine learning and artificial intelligent topics at DDD and AICamp events with 50+ participants.

Projects

Torch Activations — Apr. 2023 – Present
Python, PyTorch, Poetry
- Published a PyPI package implementing 300+ activation functions for PyTorch from mathematical representation.
- Achieved 100% test coverage and automated deployment using GitHub Actions and Poetry.

Natural Language Geocoding
Python, OpenAI, MapBox
- Developed an LLM-powered (GPT4o-mini) geocoding system using OpenAI and OSMx, converting natural language queries into precise geographic multi-polygons with advanced prompt engineering.

Education

Melbourne Polytechnic — Feb. 2024 - Present
Bachelor of Information Technology — *Melbourne, VIC*

Certification

AWS Certified Machine Learning - Specialty Certification — Mar. 2025