Alexandre Sauquet

+1 (650) 451-8215 | Menlo Park, CA | sauquetalex@gmail.com | linkedin.com/in/alexandre-sauquet

Work Authorization: U.S. Citizen

EDUCATION

Purdue University — West Lafayette, IN
Bachelor's of Science: Computer Science Honors, Artificial Intelligence, Mathematics, Statistics — *August 2023 — May 2027*
Minor: Psychology

- Cumulative GPA: 3.88/4.00 | Semester Honors and Dean's List, John Martinson Honors College.
- Relevant Coursework: Data Mining & Machine Learning, Statistical Methods (Graduate), Probability, Linear Programming and Optimization Techniques, Computational Methods in Optimization (Graduate), Elementary Linear Algebra, Data Engineering in Python, Computer Architecture, Web Application Development, Data Structures and Algorithms.

PROFESSIONAL EXPERIENCE

CAST Software | FastMCP, Neo4J — May 2025 — August 2025
Intern AI — *New York City, NY*

- Integrated CAST Software's code analysis platform with MCP servers, enabling AI-powered insights from 150+ technologies directly in GitHub Copilot and VS Code.
- Built APIs and optimized deployment for 44 MCP tools, connecting legacy analysis systems to modern AI agenetic assistants and streamlining enterprise implementation by containerizing with Docker.

E-Lab (Research Laboratory at Purdue) | Pytorch, SLURM — November 2023 — May 2025
Undergraduate Researcher Assistant — *West Lafayette, IN*

- Engineered an artificial agent for medical queries using reasoning-action (ReAct) prompting, enhancing information accessibility for rural communities.
- Developed multimodal AI models by fine-tuning state-of-the-art LLMs to automatically identify instruction steps and generate contextual visual feedback, streamlining user workflows and improving task completion accuracy.

Duarte, Inc. | HuggingFace, LlamaIndex — May 2024 — August 2024
Jr. AI Engineer Intern — *Santa Clara, CA*

- Implemented advanced AI models within consulting software solutions by creating custom pipelines, generating empathic human-like presentations that increased production speed by 29%.
- Architected software leveraging large multimodal models that analyzed diverse user-uploaded content with safe guardrails, expanding the company's service capabilities.

PROJECTS

TE Connectivity AI Cup: 1st place National, AI Assisted Manual Assembly Process Analysis — Dec 2023 — May 2024

- Achieved 1st place Nationally and 2nd place Internationally in TE Connectivity's Collegiate Competition by outperforming 46 teams from 31 universities.
- Trained and optimized a diffusion transformer model for manufacturing action segmentation by fine-tuning hyperparameters, achieving 88.7% accuracy in production environment analysis.
- Constructed a patented hand detection system using YOLO architecture by implementing automatic task labeling, enabling pipeline generalization across multiple production lines.
- Generated $170,000 in revenue by securing over 50 deployment opportunities, delivering a complete return on investment within 3 months.

EXTRACURRICULAR ACTIVITIES

Machine Learning at Purdue (Project Advisor) | PyTorch, QuantConnect, DagsHub — November 2023 — Present

- Engineered time-sequence news-alert transformer models for stock price prediction by analyzing market patterns by considering abstract features, enhancing trading strategy development.
- Won DagsHub-sponsored hackathon by designing a multi-staged Scene Graph Generation model, outperforming competing teams with novel approach.

SKILLS

- **Programming Languages**: C++, Python [PyTorch, TensorFlow, Keras, OpenCV, MatplotLib, SKlearn, Pandas, Metalog, NumPy, SciPy, Ultralytics, FastMCP], Java, C, JavaScript, x86_64, Julia, Neo4J, Bash.
- **Technologies**: React, Git, GitHub, UNIX/Linux, CVAT, DagsHub, Typst, Latex, SLURM, QuantConnect, LlamaIndex.
- **Languages:** French (native), English (bilingual), Spanish (elementary).