Dorian Benhamou Goldfajn

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EDUCATION

University of Massachusetts Amherst, Commonwealth Honors College

BS – Computer Science | GPA: 3.9 | Dean's List All Semesters   *Dec 2025 / May 2026*

SKILLS

Technology: Python, TypeScript, Java, C, Swift, AWS, React, Flask, SQL, Git, Linux, GenAI, ML, OpenCV, Keras, SciPy, NumPy
Languages: Fluent Hebrew, English. Elementary Portuguese.

EXPERIENCE

RESOURCE-BOUNDED REASONING LAB   *Amherst, MA | Aug 2024 - Present*
STUDENT RESEARCHER – HONORS THESIS

- Multi-agent reinforcement learning research using resource-constrained vision-language models to optimize Dynamic Distributed Constraint Optimization Problems (D-DCOPs) for Autonomous Vehicles applications.
- Co-author of a paper subject to publication in January 2025.

NASDAQ   *Boston, MA | June 2024 – Aug 2024*
SOFTWARE ENGINEERING INTERN – GENERATIVE AI PLATFORM TEAM

- Deploying RAG-enhanced LLMs for cross-functional teams using Python and LangChain. Leveraging prompt-engineering, embeddings, and vector stores to automate document generation for various needs and data types.
- Full stack engineering a web application to host hundreds of generative AI solutions for 8,000 Nasdaq employees worldwide, crafting UI/UX frontend using React and developing backend using Flask and AWS.
- Collaborating with Apple's Enterprise Team to innovate Vision Pro geospatial-computing business applications.
- Runner-up at Nasdaq's 2024 Canada Hackathon Challenge.

THE KATZ LAB   *Amherst, MA | June 2023 – June 2024*
STUDENT RESEARCHER – QUANTITATIVE COMPUTATIONAL NEUROSCIENCE

- Implemented open-source computer-vision PyTorch-pipelined software for animal pose-estimation. I labeled, trained, evaluated, and refined deep convolutional neural networks towards a behavioral neuroscience paper.
- Built a data visualization python program using OpenCV and pandas, extracting ML predicted and human-produced animal state classifications from a 550,000+ rows dataset for intuitive data analysis.

INVOLVMENT

BUILD UMASS   *Sep 2023 – Present*
LEAD SOFTWARE DEVELOPER

- Turning our product idea, a gamified LeetCode, into a fully functionable react-native mobile software application. My focus is on backend, spearheading Firebase user authentication, cross-ends API integrations, MongoDB database management, and AI implementation. I review and familiarize new team members with the codebase.

SOFTWARE PROJECTS

AI FALL DETECTOR & NOTIFIER

- Built a convolutional neural network architecture using TensorFlow Keras and trained a model to recognize falls in real-time. The program records the fall, uploads to AWS S3, and sends an SMS alert via the Twilio API. Developed a custom annotation method and fine-tuned the model. Packaged through Flask (until production).

MULTIMODAL AI DISABILITY ASSISTANT

- Developing a multimodal disability assistant integrating vision-language models and speech recognition to aid individuals with disabilities. Capturing visual inputs and processing spoken commands to provide relevant responses, enhancing independence and daily task efficiency.