MIKA OKAMOTO

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EDUCATION

Georgia Institute of Technology, B.S. + M.S. in Computer Science, GPA: 4.00 May 2027

Coursework: Machine Learning, Databases, Computer Systems and Networks, Data Structures and Algorithms

EXPERIENCE

Software Engineer Intern • Two Sigma Investments 6/2025 – 8/2025

- Designed key performance metrics through collaboration with product team that provide traders actionable feedback on their ideas, driving deeper platform engagement and higher-quality work.
- Engineered Python library to perform automated daily metric calculations and large-scale backfills.
- Built and deployed ETL pipeline using AWS Lambda and Step Functions to process data in Amazon RDS with PostgreSQL, including Datadog monitoring, unit tests, and full documentation.

Machine Learning Engineering Intern • Raytheon Technologies 5/2024 – 8/2024

- Developed a production-approved Python framework to integrate explainable AI into existing ML workflow.
- Integrated MLflow to enhance tracking and reproducibility in MLOps processes, saving 50+ hours/month.
- Improved object detection throughput on a constrained security system by 5x via multithreading.

Research Assistant • Financial Services Innovation Lab 1/2024 – Present

- Designed a system to profile LLMs' strengths and weaknesses and recommend the optimal model for a task based on budget constraints and necessary skills; presented first-author paper as a poster at MLSys.
- Built a holistic finance benchmark for assessing language models; co-first author paper accepted at ACL.
- Explored machine unlearning techniques to discover how training data affects outputs and performance.

Research Assistant • Georgia Tech Research Institute (GTRI) 1/2024 – Present

- Created a chatbot infused with RAG on research papers and a code generation pipeline to create, execute, and debug simulations in Python, empowering users to quickly learn specialized topics and test ideas.
- Devised search algorithms that utilize AI agents to optimize scientific claim decomposition and verification.

Bioinformatics Intern • Palmer Lab at UCSD 6/2023 – 10/2023

- Optimized ML algorithm for trait prediction based on genetic data through data reduction with Python & R, reducing number of input features from 7.3M to 50k with minimal (< 0.01%) performance degradation.
- Co-authored 2 journal articles on genetic prediction: Google Scholar; Research Website.

PROJECTS & EXTRACURRICULARS

- Anime Recommender: User-friendly Flask website that displays a filterable database of 20,000+ animes, provides recommendations based on user preferences, and includes translation between 10+ languages.
- Stinger Seller: Online marketplace built with Flask and SQLite database, featuring item search by words and phrases, payments via Stripe API, tag-based filtering, and sentiment analysis for enhanced user experience.
- FIRST Robotics Competition (FRC): Led team effort on Java code development for fully autonomous robotic operation via computer vision; won best programming awards at competitions with over 40+ other robots.

SKILLS

- **Programming**: Python, R, Java, SQL, Bash, C++, HTML, CSS, JavaScript, Golang
- **Technologies**: Git, GitHub, Excel, Docker, AWS, Trello, Jira, Confluence, ClickUp, Android Studio
- **Full Stack**: ReactJS, Flask, Gradle, REST APIs, Firebase, MySQL, SQLite, Microsoft SQL Server
- **Machine Learning**: PyTorch, TensorFlow, scikit-learn, Pandas, NumPy, OpenCV, matplotlib, seaborn, Jupyter
- **Interests**: Machine Learning Engineering, Cloud Computing, Scalable Distributed Systems, Financial Markets