

Mohamed (Mo) Emish

Machine Learning Researcher and Software Developer

Ph.D. Student at the University of California, Irvine (UCI) Donald Bern School of Informatics and Computer Science. My research interests are Deep Learning and consumer health informatics. Taught over 700 undergraduate students Human-Computer Interaction and Programming.

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📍 Irvine, CA

👤 mohamedemish

EXPERIENCE

UC Institute of Prediction Technology, Irvine, CA
Aug 2021 - Present

Machine Learning Researcher

- Developed and implemented federated learning algorithms to analyze medical data while preserving data privacy
- Designed a blockchain-based marketplace for data crowdsourcing and monetization using NFTs to enable secure sharing of wearable device data
- Built a recommendation system for personalized healthcare ads, achieving a 540% increase in click-through rate using geolocation data and advertising IDs
- Created a mobile app library for consensual user tracking and ad delivery, resulting in a 320% increase in engagement
- Implemented a spatial data science pipeline for processing hundreds of GBs of GPS mobility records from mobile devices

CueBack (Remote) Jun 2021 - Aug 2021

Software Engineering Intern

- Developed a collaborative filtering recommender system in Java to improve content relevance

Galaxy Semiconductor (Remote) Sep 2020 - May 2021

Machine Learning Researcher

- Developed deep learning models and clustering algorithms to improve faulty silicon wafer detection
- Created an API for data retrieval and computationally-heavy code execution, containerized using Docker

Apple Inc., Cupertino, CA Feb 2020 – Aug 2020

Product Management Intern

- Reduced API latency and production bugs by analyzing API logs and communicating insights to engineering teams
- Launched a new feature on App Store, overseeing engineering, QA, marketing, and sales teams to serve mobile ads for a new segment of applications
- Led an extensive investigation of user metrics, business KPIs, and revenue forecasting

OTHER EXPERIENCE

University of California, Irvine, CA Sep 2022 - Present

Teaching Assistant

Publications

- “On Monetizing Personal Wearable Devices Data: A Blockchain-based Marketplace for Data Crowdsourcing and Federated Machine Learning in Healthcare”, *Artificial Intelligence Advances*, 2022
- “Cryptocurrency as a New Method for Participant Compensation in Research”, *Health Policy and Technology* (In review)

Technical Skills

Web Development & Programming
Python, SQL, JavaScript, Java, C++, AWS stack, RESTful APIs, Frontend, SQL DB, No-SQL DB, CI/CD, Docker

Machine Learning

NLTK, SpaCy, GPT-3 API, PyTorch, TensorFlow, OpenAI Gym, ARIMA

Data Science

Pandas, Statistical analysis, Probabilistic modeling, A/B testing

Hardware

Trusted Execution Environment, Accelerator Design, VHDL

EDUCATION

University of California, Irvine, CA

June 2026 (Expected)

Ph.D., Informatics

Claremont McKenna College, Claremont, CA

May 2021

Bachelor of Arts, Computer Science