Michelle Sang

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EDUCATION

The University of Texas at Dallas

August 2021 - December 2025

Bachelor of Science in Computer Science

SKILLS

Relevant Coursework: Machine Learning, Artificial Intelligence, Database Systems, Advanced Algorithms,

Data Structures, Probability & Statistics, Software Engineering, Operating Systems, UNIX

Languages: Python, Java, JavaScript, TypeScript, HTML/CSS

Frameworks/Technologies: React, Node.js, FastAPI, PostgreSQL, Supabase, Docker

Projects

Tweet Analysis | | Python, React, Node.js, PostgreSQL, Figma

- Led a team of engineers through development of a full-stack web app with a scalable cloud-native backend, mapping real-time Tweet data by geolocation to aid first responders in deciphering social media streams
- Wrote Python scripts to ingest and normalize tweets, apply LLaMA-based severity classification, and send results to Supabase/Postgres, while exploring geolocation techniques that improved accuracy by 61%
- Implemented CI/CD pipelines and real-time data streaming with Supabase to ensure seamless synchronization between backend services and the React dashboard
- Live demo available at: https://disaster-tweet-analysis.vercel.app/

Mesothelioma Disease Classification | Python, CVXOPT, scikit-learn

- Developed an SVM classifier from scratch using quadratic programming to analyze diagnostic data from 325 patients, achieving 81.8% accuracy
- Optimized regularization parameters and evaluated performance across training, validation, and test sets
- \bullet Re-implemented the model with scikit-learn SVMs, improving training efficiency and scalability, and boosting accuracy to 97.1%

mymatcha | Python, React, Node.js, FastAPI, Docker, HTML/CSS

- Designed and developed a matcha-themed web app that addresses global matcha shortages with backend scripts and a custom RESTful API to parse JSON to automate e-commerce pipelines
- Optimized data storage with real-time database integration and secure data access, testing and optimizing API endpoints (using FastAPI's OpenAPI) for smooth user experiences

WORK EXPERIENCE

The University of Texas at Dallas | Undergraduate Research Assistant

December 2024 - May 2025

- Developed a novel AI dataset focused on understanding internet memes to advance multimodal machine learning model's ability to grasp nuanced humor and cultural references
- Researched logical fallacies for clear annotation guidelines, improving reliability of supervised learning tasks

City Of Carrollton | Esports Data & Marketing Intern

June 2024 - April 2025

- Spearheaded launch of a new esports center with custom PC builds and data-driven marketing decisions
- Implemented CRM improvements and social media outreach to maximize engagement

Vinebase | Software Engineering Intern

June 2020 - August 2020

- Designed and deployed Java-based scrapers to automate data collection and analysis for 100+ wineries, empowering partners with insights to better understand their customer reach and market trends
- Directly influenced network growth by promoting collaboration between customers and small producers

LEADERSHIP EXPERIENCE

Filipino Student Association | Family Leader

August 2023 - May 2025

- Mentored and guided underclassmen in academics and personal development through structured peer support
- Organized collaborative events with social and cultural organizations, fostering inclusivity and engagement