Michael Yang

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EDUCATION

University of California—Santa Barbara   Santa Barbara, CA
Double Major: BS in Computer Science, BS in Data Science & Statistics   *Sep. 2021 – June 2025*
- GPA: 3.85/4.0, College of Engineering Honors, Regents Scholar (top 1% incoming class)

EXPERIENCE

Software Engineering Intern   June 2023 – Present
Principal Financial Group   *Des Moines, IA*
- Designed and implemented a full-stack process that modernized how Principal generates large statistical reports on >50k owned investments, saving >10 hours per usage
- Led the full development process from creating tickets to testing, to identifying security risks and deployment
- Effectively communicated with market researchers to identify core features for product users
- Designed efficient event-driven microservices architecture 3x faster than original application
- Built with Next.js and Typescript React, AWS, SQS, additional REST API built with Java Spring

Undergraduate Research Assistant   Sep. 2022 – June 2023
UCSB Systems and Networking Lab   *Santa Barbara, CA*
- Conducted Explainable AI Research in networking: trained, evaluated various neural network architectures for network intrusion detection with PyTorch
- Extracted model logic with novel framework that trains surrogate decision trees on neural networks
- Demonstrated that 3 modern synthetic network data sets have subtle but exploitable shortcut features resulting in poor performance on out-of-sample data

PROJECTS

Java Stock Database | *Java, SQL, Oracle DB*
- Used Java, SQL, Oracle DB to implement an interface and database to represent a self stock market and its movements
- Interface and back-end built with Java, designed and implemented relational SQL database on Oracle Cloud with more than 20 tables
- Implemented user login system, with individual users being able to trade and observe market movements

UCSB Course Registration | *Full-Stack Dev, React, Java, Spring*
- Used React and Java Spring to develop an improved web page for searching and registering for courses at UCSB
- Wrote API calls and extensive unit and integration tests in Java

Predicting San Francisco Crime | *Machine Learning, Google Cloud, Python*
- Used OpenSF Crime Database and Bayesian predictor to predict what crimes are committed and where they are committed in San Francisco
- Created web UI with HTML/CSS/JavaScript, site hosted on Google Firebase

TECHNICAL SKILLS

Languages: Java, Python, C/C++, TypeScript, SQL, R
Frameworks: React, Next.js, Node.js, Spring, JUnit, PyTorch, AWS, MPI

RELEVANT COURSEWORK

Computer Science: Data Structures/Algorithms, Database Engineering, Web Application Development, Parallel Computing, Computer Architecture, Operating Systems
Data Science/Statistics: Machine/Deep Learning, Stochastic Processes, Regression Modeling