Adith J. Mohanty

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EDUCATION

University of California Berkeley — **Berkeley, California**
B.A. Data Science, B.A. Applied Mathematics — Expected Graduation, May 2027

- GPA: 3.82/4.00
- Related Coursework: Structure of Computer Programs, Data Structures and Algorithms, Principles & Techniques of Data Science, Abstract Linear Algebra, Discrete Mathematics, Multivariable Calculus, Optimization Models, Probability Theory

EXPERIENCE

Cisco Systems — **San Jose, CA**
Incoming Software Engineering Intern — May 2025 – Aug 2025

- Developing low-latency network automations and AI-driven analytics on Cisco's Nexus Dashboard, ~13,000 customers

Coca-Cola Reyes — **Berkeley, CA**
Technical MLE Consultant (contract) — Aug 2024 – Current

- Built Python script to scrape consumer web data, using EDA on ~2k entries to clean unstructured data from API payloads
- Pre-processed text using NLTK and POS-tagging; Explored joint sentiment topic model utilizing algorithms like LDA
- Designed a real-time data pipeline with AWS SQS and Kafka to ingest and process sentiment data for the forecasting model
- Delivered sentiment analysis demo with PyLDA visualizations impacting business decisions for 10 Coca-Cola brands

Cisco Systems — **San Jose, CA**
Network Engineering Extern — June 2023 – Aug 2023

- Automated fragmented packet detection at the transport layer, reducing security bypass rate from ~40% to ~10%
- Built a Flask dashboard to display network analysis for traffic captured with Wireshark and cleaned data using Pandas
- Implemented chatbots for task management into team WebEx channels, allowing an increase of ~50% in productivity
- Developed topological maps of network-connected devices using dCloud, simplified network management for 30 users

Robolabs — **San Francisco, CA**
Research Lead — May 2020 – May 2023

- Directed and filed a patent with a team of 9 for a wildfire detection and mitigation system; Patent Tracking No. 63/193,437
- Published research and findings about FALCON in the Young Inventors Journal: tinyurl.com/FALCON-research
- Designed CAD models for surveillance systems, considering manufacturing, installation, and environmental impact
- Engineered HSV color algorithm with OpenCV, improving detection by ~50%, and a 15-sec emergency notification system

PROJECTS

OptionsPricer | Python, JavaScript, Flask, Pandas, NumPy, SciPy

- Building full-stack app for pricing European and American options using Black-Scholes, Binomial Tree, and Heston models
- Designing frontend with JavaScript and Flask for intuitive user input collection and real-time pricing with minimal latency
- Implemented model pricing updates leveraging NumPy and SciPy for stochastic modeling and variance reduction

CreatorFlow | Python, React, Flask, Firebase, Selenium, NLTK, TensorFlow

- Social media post manager that automates engaging video generation and provides audience analytics for content creators
- Developed ETL pipeline extracting 100 posts/hour on Reddit using Selenium and BeautifulSoup, using Firebase for storage
- Enhanced sentiment accuracy by 10% for fine-tuned DistilBERT optimized with TensorFlow using NLTK to clean texts
- Achieved video generation in ~30 secs using LMNT API and AnimateDiff-Lightning for speech and content generation

Infoweaver | TypeScript, React, OpenAI GPT-4o, AWS (S3 EC2), Firebase, Manim

- Created AI-powered edtech platform that generates material and study content from inputs like textbooks and worksheets
- Designed ingestion engine using OCR and OpenAI GPT-4o for ingestion, summarization, and question formulation
- Used AWS S3 as staging zone for media before transfer to Firebase; Vercel for web hosting; Revideo for lecture generation
- Improved production quality of videos using Manim leading to a ~70% increase in usability and accessibility

PathPilot | C++, PROS, IMU (Inertial Measurement Unit)

- Guided team of 7 to win Excellence (4x); qualified for States and World Championships (3x); top 1% in global performance
- Pioneered a novel odometry system using data from sensors, offering autonomous routines faster than 92% of other teams
- Designed and optimized Pure Pursuit algorithm, with a built-in PID loop for velocity control, leveraging the PROS API
- Managed and maintained a large Git repository used by 11 teams; Incorporated CI/CD pipelines and modular architecture

PROFICIENCIES, TOOLS, INTERESTS

Languages: Python, Java, JavaScript, HTML/CSS, C++, TypeScript, Go
Libraries/Tools/Platforms: NumPy, SciPy, Pandas, Scikit-learn, Seaborn, TensorFlow, OpenCV, Matplotlib, OpenAI, NetworkX, ReactJS, Express, Flask, Hugging Face, AWS, Firebase, PostgreSQL, Vercel, Git/GitHub, Jupyter, VS Code, IntelliJ
Interests: Cooking, Poker, GT Series Racing, Car Mods, Calisthenics, SaaS, Startups, Building Cool Things, CoD