JOVAN YAP

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EDUCATION

University of California, Berkeley

Berkeley, CA

Master of Engineering in Computer Science and Electrical Engineering

May 2026

Coursework: Data Structures & Algorithms, Software Engineering, Computer Networks, Distributed Systems, OSCP

University of Michigan, Ann Arbor - Shanghai Jiao tong University

Ann Arbor, MI

Bachelor of Science and Engineering in Computer Science (Double-degree program) GPA: 3.9/4.0

May 2025

Coursework: Fullstack Web System, Computer Vision, Machine Learning, Operating System, Agentic AI Systems

WORK EXPERIENCE

Bytedance (Global Payments Team)

Singapore

Incoming AI Software Engineer Intern

May 2025 – *Aug* 2025

- Engineer scalable ML pipelines integrating LLMs and GNNs for real-time financial risk detection and compliance.
- Develop A3C reinforcement learning model to detect financial compliance risks across e-commerce platforms.

Govtech (Video Analytics Team)

Singapore

AI Software Engineer Intern

May 2024 - Aug 2024

- Built a multimodal RAG misinformation detector with 91% accuracy using VLMs like Llava and Idefices2.
- Developed a large-scale AI Video & Face Indexing Recommendation System with 30k users with NextJS on AWS.
- Built the backend architecture for a media indexing system with DynamoDB, API gateway, Rekognition, Lambda Fns
- Developed Web Crawlers to curate News articles dataset and to streamline fake news detection workflows.

Land Transport Authority

Singapore

Machine Learning Engineer Intern

Jun 2023 - Aug 2023

- Designed the PPO reinforcement learning distributed training pipeline using Pytorch AWS to train the Meta Llama2.
- Developed multithreading Meta llama2 training pipeline and studied the deployment of chatbots using semantic search.

Medios (MedTech Startup)

Singapore

Machine Learning Engineer Intern

Dec 2022 - May 2023

- Performed image and data processing and annotation and trained a deep learning model with TensorFlow on AzureML.
- Deployed an eye image quality classifier with a remarkable 93% accuracy for clinical trials to filter clear images.

PROJECT & RESEARCH EXPERIENCE

University of Michigan Human-AI Lab

Ann Arbor, MI

AI Software Engineer

Current

- Developed WorldScribe, integrating memory for context-aware descriptions, enhancing accessibility for blind users.
- Designed an AI agent with dynamic memory system, reducing repetitive descriptions and enabling real-time interactions.

Autonomous Robotics Vehicles Organization (Computer Vision Team)

Ann Arbor, MI

Machine Learning Engineer

Jan 2024 - May 2024

- Designed the AI deep learning algorithms to train the YOLO instance segmentation model and deployed it on **ROS**.
- Deployed model on the autonomous vehicles with sensors module with GPS, Lidar, Camera, and WiFi.

University of Michigan EECS485 Web Systems

Ann Arbor, MI

Fullstack Software Engineer

Jan 2024 – May 2024

- Developed an Instagram-like software AWS, React front-end, Flask back-end and relational database with REST API.
- Designed a MapReduce distributed system with network programming TCP using Hadoop and multithreading.
- Engineered a search engine with dynamic information retrieval algorithms like tf-idf text analysis and link analysis.

TECHNICAL SKILLS

Language/Database: Python, C++/C, HTML/CSS, JavaScript, TypeScript, SQL, Swift, Java, PostgreSQL, Go Frameworks & Libraries: CUDA, ReactJS, VueJS, NextJS, Pytorch, TensorFlow, Langchain, Chroma, Keras, Hadoop Platforms & Tools: AWS (EC2, Sagemaker), AzureML, RESTAPI, Docker, Git, DevOps, Terraform, Figma