

SHI JIE YU

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Education

National University of Singapore (NUS) / Aug 2020 – May 2024

- Bachelor of Science in Business Analytics with Honors (Distinction)
- Relevant Coursework: Deep Learning, Programming Methodology, Data Structures and Algorithm, Calculus

Technical Skills

- **Programming Languages:** Python, SQL (PostgreSQL, Spark SQL), JavaScript, TypeScript, Java, Solidity, C++, Bash
- **Web:** HTML, CSS, Firebase, React, Next.js, MongoDB, Chakra UI, Prisma, Amazon Web Service
- **Machine Learning:** Pandas, Scikit-Learn, Tensorflow, PyTorch, Google Cloud Platform (Vertex AI)

Work Experience

Tensorplex AI, AI Engineer / Apr 2024 – Present

- Spearheaded continuous pretraining and finetuning of large language models on billions of tokens' worth of web3 domain-specific corpora using state-of-the-art techniques such as low-rank adaptation (LORA) and task arithmetic
- Utilized language model projects such as [LLaMA-Factory](#) and [lm-evaluation-harness](#) extensively to train and evaluate models; contributed to open-source, including integrating MMLU-Pro benchmark into lm-evaluation-harness

Autodesk, Data Analyst Intern / May 2022 – Oct 2022

- Designed interactive Looker dashboards for 3 Autodesk product lines (ReCap Desktop, ReCap Viewer, ReCap Pro), yielding actionable business intelligence capable of informing strategic decisions at the director level
- Engineered, scheduled, and monitored 20+ daily and weekly Big Data ETL workflows on terabyte-scale data with SQL, Jenkins, and Apache Airflow to for analytics with Qubole and monitoring with Mixpanel
- Spearheaded a machine learning project to predict EC2 peak memory usage using ensemble methods (Random Forests, XGBoosts, LightGBM) and deep neural networks, reducing the cloud cost of AWS EC2 deployments by 50%

Projects

Business Analytics Capstone | Feature Engineering, Shapley Additive exPlanations, Bayesian Optimization

- Collaborated with SeaMoney data science team to identify fraudulent merchants on ShopeePay by training a suite of machine learning models (SVM, Random Forest, Gradient Boosting Models) which achieved recalls above 90%
- **Impact:** final grade attained is A; out-of-sample testing correctly identifies 9 out of 10 fraudulent merchants

Surf ([smartcontract.surf](#)) | AWS (EC2, Lambda, SDK), OpenAI API, Smart Contract Security

- Pioneered an AI-driven smart contract auditing platform that autonomously detects and mitigates security risks in smart contracts with LLMs, accelerating smart contract audits from industry-standard several weeks to a few hours
- **Impact:** champion at Solana Builders League 2022; recipient of \$10,000 grant from NUS Enterprise

BuilderFi ([builder.fi](#)) | Solidity, Foundry, SocialFi, Airstack, zkEVM, Layer 2

- Spearheaded end-to-end smart contract development, testing, and deployment with Solidity for a SocialFi decentralized application centered around web3 entrepreneurs within 3 days
- **Impact:** Ethereum Singapore Hackathon 2023 winner of 4 different sponsor tracks, including 2 first prizes

SIGNify ([GitHub URL](#)) | Tensorflow, Convolutional Neural Networks, OpenCV

- Led a team of 3 in ideating and developing an AI-driven American Sign Language (ASL) interpreter capable of translating ASL signs to English with 99% accuracy using computer vision technology
- **Impact:** grand finalist at National AI Student Challenge 2022

Leadership and Extracurricular Activities

NUS Fintech Society, Co-Director of Machine Learning

- Managed a 60-member machine learning interest group, creating learning and networking opportunities for members via workshops and hands-on projects; managed 10+ ML projects in varied domains, including NLP, LLMs, and XAI

Additional Information

- **Languages:** English (Proficient), Chinese (Proficient), Korean (Basic)
- **Interests:** Boulderling, Cycling, Piano, Gym, Traveling, Natural Language Processing (Large Language Models)