

Elijah Ng

elijah@0xeljh.com | +65 9623 2646 | [linkedin](#) | [github](#) | [website](#)

WORK EXPERIENCE

Pacts (Pre-seed Airdrops-as-a-Service startup)

Remote (Amsterdam)

Full Stack Engineer

Feb 2024 - Nov 2024

- Built internal simulator/calculator to model campaign reward and progression curves based on on-chain analytics.
- Decoded and analysed DeFi protocol interactions (GMX, Permia, etc.) to support campaign design by identifying & pattern matching "real" value-add users, and support downstream data ingestion.
- Designed and developed the web and telegram interfaces for users to visualise and manage on-chain activity, airdrop campaigns, and accumulated points. Strong positive feedback from both client protocols and end users.

Freelance

Remote (Various/NY/HK)

Empire Group Holdings

Jan 2023 - Nov 2023

- Developed systematic strategy backtests for a crypto index fund, analysing over 2,000 tokens across ten years of historical data, resulting in a rigorous breakdown and analysis presented to the CIO and panel of a 2.5B fund.
- Formulated models to capture potential slippage and liquidity issues within the backtesting framework, identifying critical risk factors and issues that could skew returns. Flawless 3rd-party audit by a partner quant firm.
- Developed a similar backtest framework and model ensemble for earnings prediction plays

[Drawanyone.io](#)

Nov 2022 - Dec 2022

- Reduced peak training VRAM by 50% of dreambooth (stable diffusion few-shot learning) via quantization and attention chunking: saved finetuning costs by 35% by fitting it on a single RTX 3080
- Improved generation (esp. Asian faces) through learning rate control (reduce on plateau), changes to regularization/class image set, and minor data augmentations.

MarinaChain

Singapore

Cofounder

Jan 2022 - Aug 2022

- Processed over 1.2TB of satellite positional data and vessel engineering specifications to engineer a linear model that estimates vessel emissions. Built a React MVP to integrate the model into a vessel carbon accounting system.
- Researched the feasibility of document understanding models to parse semi-structured vessel engineering spec. sheets.

MindPointEye

Singapore

Machine Learning Engineer

Jan 2021 - Dec 2021

- Enhanced YOLOX tiny from an average mAP of 0.5 to 0.85 across multiple tasks by adding data augmentation (as per SimCLR) and loss-dependent learning rate control (combined with changes to the SGD optimiser)
- Automated and enhanced dataset annotation process as a self-started initiative: developed a latent space analysis tool by combining GAN models and clustering to detect dataset biases; replaced manual image annotation with a self-training pipeline to annotate scrapped images in a semi-supervised fashion using large vision models. Assigned two regional teams to scale up these in-house tools.
- Developed pipeline for converting torch/ONNX models to quantised RKNN models, for inference on Rockchip NPUs.

PROJECT EXPERIENCE

ETH Tokyo 2023

Tokyo

Hackathon Winner: Best data dashboard

Apr 2023 - Apr 2023

- Attained buy-in on 3 crucial metrics 1inch needed to deobfuscate 1inch Fusion, a new intent-based gasless swap.
- Presented a Jupyter notebook aggregating USD profit, true volume (removed double counting of intermediate swaps), and total gas fees paid by resolvers (swap executors) on 1inch Fusion. Won 4k in prize money.

EDUCATION

National University of Singapore

Singapore

BEng. Engineering Science, minor in CS. Graduate-level classes in numerical methods and control theory. A- median grade.

Graduation Date:
May 2021

SKILLS & INTERESTS

Skills: Python, Typescript, SQL | Experienced with Triton, PyTorch internals, and transformers/accelerate/bitsandbytes | Experimented with models like Llama, CLIP, qwen, stable diffusion, BERT, and the YOLO series

Interests: Building things: EDH telegram bot, degencryptojobs.com [10k visitors/month] | Open contributions to pytorch-lightning and unsloth | Failed projects: undertherocknews.com (news filtering service), bioimpedance-based heart-stroke-volume wearable sensor | MTG, drawing, and cooking