

Duy Nguyen

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Education

National University of Singapore, B.Comp. in Computer Science – Singapore Aug 2022 - present

- GPA: 4.84/5.00 ([Transcript](#)), concentrated in Algorithms & Theory and Artificial Intelligence
- Top Students for Discrete Structures, Data Structures and Algorithms, Programming Methodology, Software Engineering, Design and Analysis of Algorithms, Operating Systems, Competitive Programming

National University of Singapore, B.Sc. in Data Science and Analytics – Singapore Aug 2022 - present

- GPA: 4.90/5.00 ([Transcript](#)), concentrated in Operations Research, minored in Quantitative Finance

Experience

AI Centre for Educational Technologies, Software Engineer Intern – Singapore May 2025 - Aug 2025

React, JavaScript, TypeScript, Material UI, Tailwind CSS, Ruby on Rails, PostgreSQL, OpenAI API

- Enhanced [Coursemology](#), an open-source gamified LMS used by thousands of students and instructors
- Integrated AI-assisted grading and programming plagiarism services, enabling automated rubric feedback and similarity scans to enhance grading consistency and reduce manual workload for instructors

Vilota, Algorithm Engineer Intern – Singapore May 2024 - Aug 2024

C++ , Python, OpenCL

- Integrated AprilTag 3 to accelerate fiducial marker detection, achieving 6x faster camera calibration
- Implemented real-time panorama generation algorithm with parallel processing on i.MX 8M Plus Processors

Computing for Voluntary Welfare Organisations, Software Engineer Intern – Singapore May 2023 - Aug 2023

React, TypeScript, Material UI, Golang, PostgreSQL

- Built admin dashboard for a multi-tenancy management system used by 400+ social workers in 11 Active-Aging Centres
- Built low-code tool for custom reports, reducing developing time for new client requirements from days to hours

Institute for Infocomm Research, NLP Research Intern – Singapore Jan 2022 - Apr 2022

Python, Pytorch, BeautifulSoup, Selenium, Fairseq, Wandb

- Trained a transformer model for Vietnamese Neural Machine Translation Engine (40+ BLEU score) and different quality estimation models to evaluate translation quality automatically with good correlation to human evaluation

Projects

PayDay Digital Wallet Aug 2023

React Native, Node.js, Firebase, Stripe API

- Developed a mobile e-wallet with email OTP verification, guardian notification, and risk evaluation features
- Attained top 12 finalist teams at Tiktok Hackathon Challenge 2023

Address Element Extraction Mar 2021

Python, Pytorch, Pandas, Transformers, IndoBERT

- Fine-tuned a named-entity recognition model to extract street names from Indonesia addresses given by Shopee users
- Attained 1st place out of 1,000+ teams in the Data Science Challenge of Shopee Code League 2021

Skills

Programming Languages: C/C++ , Python, Java, JavaScript, TypeScript, Golang, Ruby, HTML/CSS, SQL, R, Bash

Frameworks and Libraries: React, Material UI, Tailwind CSS, Ruby on Rails, PyTorch, Pandas, FastAPI, Tidyverse

Developer Tools: Linux, Git, CMake, Docker, AWS, LaTeX

Awards

- **Finalists** for various CTF events: DSTA Brainhack CDDC, GovTech Singapore AI CTF, NUS Greyhats Grey Cat The Flag
- **First Prize** for Computing Track at [Huawei ICT Competition Asia Pacific 2023-2024](#)
- **3rd Place** for APAC Terminal Fall 2023 — AI tower defense programming competition by Correlation One & Citadel
- **Silver Awards** for National Olympiad in Informatics (2019–2021) and Singapore Mathematical Olympiad (2020–2021)