

# David Kieu

Portfolio — david.kieu25@gmail.com — david-kieu-tech — monsieurkd

**Summary** — My journey into tech began with fixing spreadsheets and computers for my family's business, which sparked a passion for automation and solving real-world problems. As a Computer Science graduate with a major in Artificial Intelligence, I have since honed this passion by building full-stack applications and deploying machine learning models. I am now eager to apply my skills and enthusiasm for learning to a challenging software engineering role where I can make a tangible impact.

## Skills

**Languages** Python, JavaScript, TypeScript, HTML/CSS, SQL

**Frameworks** React, Node.js, Flask, Express  
**AI/ML** TensorFlow, PyTorch, scikit-learn, OpenCV  
**Tools** Git, Docker

## Experience

### University of Adelaide

Summer Research Intern

Nov 2024 – Present

Adelaide, Australia

- Investigated 'grokking' in neural networks, identifying key triggers for delayed generalization in models.
- Designed and implemented a novel curriculum learning strategy that accelerated the onset of grokking by up to 40% compared to standard training protocols.
- Validate the effectiveness of curriculum-based training methodologies against baseline models.

### Kaopiz Software JSC

Machine Learning Engineer

Nov 2023 – Feb 2024

Hanoi, Vietnam

- Built OCR models to detect Japanese character, improving processing accuracy by 25%
- Automated image processing workflows, reducing manual steps in data preparation in 4 days
- Evaluated algorithms for optimal balance between computational efficiency and accuracy

### Ecosmartvietnam

Software Engineer

Sep 2022 – Jan 2023

Hanoi, Vietnam

- Led a team to build and deploy a production website with a Flask backend and a responsive frontend.
- Implemented SEO strategies that increased organic traffic by 30

## Education

### University of Adelaide

Bachelor of Computer Science

2020 – 2024

Adelaide, Australia

- GPA: 6.5/7, Majors: Artificial Intelligence
- Coursework: Algorithms & Data Structures, Web & Database, AI, CV, System Programming

## Projects

### Discord Clone (Node.js, React, WebSocket)

[github.com/monsieurkd/discord-clone](https://github.com/monsieurkd/discord-clone)

- Engineered a full-stack Discord clone, achieving real-time message latency of under 80ms using a WebSocket-based architecture for a seamless chat experience.
- Optimized PostgreSQL queries and implemented efficient data modeling, resulting in API response times of under 150ms for all core features (fetching messages, servers, user profiles).

### Object Detection Web App (Python, YOLO, JavaScript)

[github.com/monsieurkd/Object\\_detection\\_tech\\_e\\_challenge](https://github.com/monsieurkd/Object_detection_tech_e_challenge)

- Developed a full-stack application that allows users to upload images and receive object detection results in under 5 seconds.
- Integrated a YOLOv8 model and fine-tuned the frontend with JavaScript to interactively display bounding boxes and confidence scores
- Pitched the idea with the project that earned the top score in the Tech eChallenge course

### ML Flappy Bird Project (Python, Deep Q-Learning)

[github.com/monsieurkd/AI\\_flappy\\_bird](https://github.com/monsieurkd/AI_flappy_bird)

- Implemented a Deep Q-Network (DQN) to train an AI agent to autonomously play Flappy Bird, complete all difficulty variation of the game.
- Designed and optimized the reward signal, which reduced the training time required to achieve a target score by 30