

John Ling

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WORK EXPERIENCE

AMBANK GROUP BHD,
Data and Digitalisation Intern

Kuala Lumpur, Malaysia
November - December 2023

- Built a **RAG-stack LLM system** in 9 days that allowed users to receive tailored financial advice and compare over **1000 Malaysian companies** for investing. Users could converse with the model and ask for further clarification on specific details of its responses. Built using **React, MySQL** and **Flask**. Learned a lot about RAG systems, LLMs and **vector databases**.
- Developed a **Work-From-Home reservation web app** for employees in the Digitalisation department to request to work from home and allowed managers to approve or reject requests. App was tested and **deployed to an office of 60**.

AMBANK GROUP BHD,
Cyber Security Intern

Kuala Lumpur, Malaysia
October - November 2023

- Briefly **worked alongside L1 SOC analysts** at AmBank Group BHD, a bank whose **largest stakeholder is ANZ**, where I handled alerts from the bank's SIEM platform.
- Was present for a **nation mandated cybersecurity drill** in the bank and saw how the technical and management team handle a ransomware attack
- Found and **reported a potential weakness** in the company's data leakage prevention system that could be used in a possible data exfiltration.
- Learned more about penetration testing and went through previous tests with AmBank's VAPT team.
- **Independently studied penetration testing** through sites such as RootMe and HackTheBox. Learned about basic pentesting techniques such as **SQL injection** and **HTTP interception with Burp Suite**. I learned about weaknesses of modern web technologies such as **GraphQL** and **JSON web tokens**.

LANGUAGES AND TOOLS

Languages: Python, Javascript (React, Node and Vanilla), C

Tools: DigitalOcean, Docker, Firebase, NGINX

EDUCATION

University of Melbourne
BSc Computing and Software Systems

Parkville, Melbourne
Feb 2024 - Nov 2026

Garden International School
A Levels 2023
Computer Science: A* Mathematics: A* Physics A

Kuala Lumpur, Malaysia
August 2017 - August 2023

PROJECTS

- **Pseudocode Compiler:** A complete **transpiler built using C++** that takes files containing a made up "pseudocode" language and converts it to Python. Uses a **handmade lexer, recursive descent parser and code generator**. The compiler also performs **semantic analysis** to find undeclared variables and has type checking.
- **Trello Tabliss Integration:** Forked the Tabliss browser extension and added my own modifications to pull data from my Trello board and display it conveniently in the browser homepage. The Trello module was written in **React** and used **Firestore with NodeJS** to handle the API calls to Trello.
- **Cameraman:** A **camera that follows you in real-time**. Electronics project that used **Python with OpenCV** to perform **live face detection using a Caffe model**. Coordinates of the face are sent to a standalone ATmega328p microcontroller that uses motors to adjust a camera to the position. **Device was deployed within my school class** to improve the hybrid teaching experience.
- **johnling.me:** My **personal portfolio website** where more details about me and my projects can be found. Built using **Bootstrap, Sass and Javascript**.
- **ramble.johnling.me:** CISSA CODEBREW Hackathon project that won "Best First Year" award. Made using React and Flask and then deployed using Docker.