John Ling

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WORK EXPERIENCE

AMBANK GROUP BHD.

Data and Digitalisation Intern

Kuala Lumpur, Malaysia

November - December 2023

Built a RAG + 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**.

AMBANK GROUP BHD,

Kuala Lumpur, Malaysia

October - November 2023

Cyber Security Intern

- Briefly worked alongside L1 SOC analysts at AmBank Group BHD, a bank affiliated with ANZ, where I handled alerts from the bank's SIEM platform.
- Was present for a cybersecurity drill in the bank and saw how the technical and management team handle a ransomware attack
- Found and reported a 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

Garden International School

Parkville, Melbourne

2024 - 2027

BSc Computing and Software Systems

Kuala Lumpur, Malaysia

A Levels 2023

2017 - 2023

Computer Science: A* Mathematics: A* Physics A*

IGCSE 2021

Physics: A* Computer Science: A* Mathematics: A* English Literature: A* Music: A* History:

A* Biology: A* Chemistry: A* English Language: A*

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. Trello module was written in React and used Firebase 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.