Dhivya Ravindran

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Education

Imperial College London — MEng Computing (Artificial Intelligence)
On track for a 1:1 — *Oct. 2018 – July 2022*

Kolej Yayasan UEM, Malaysia — A Levels
*4A*s: Mathematics, Further Mathematics, Physics, Economics* — *July 2016 – June 2018*

Work Experience

Tech Development Team Lead | *AGORAx* — July 2020 – Present

- Developed first iteration of the media publishing platform using Wordpress
- Managing a team researching and developing the second iteration of the platform as a full stack Cross-Platform Application using a Flutter/Dart tech stack.

Technology Intern | *SK Sunbelt Solutions and Supply* — July 2020 – Sep 2020

- Created script to automate report generation for data analysis.
- Developed programs written in Python to forecast demand of items, predict lead time, and used these models to flag high priority or high delay items for the logistics company.
- Set up an Item Quality Control database using Microsoft Excel and VBA.

Executive, Branding and Strategy Office | *GenCorporate* — Oct 2018 – May 2019

- Advised representatives of companies on the organisation of recruitment events for incoming Malaysian graduates.
- Produced visuals and marketing materials to advertise recruitment events using Adobe Illustrator, and maintained the organisation website.

Projects

COVID-19 Volunteer Web Application | *HTML, CSS, React, Node.js, MongoDB, Heroku*

- Developed a full stack Web Application using the *MERN* stack and deployed it on *Heroku*, for connecting volunteers to at risk groups
- Designed in an iterative process using regularly collected feedback from users.

Optimising WACC Compiler | *Java, ANTLR, Python, Ruby*

- Built full WACC compiler including parsing, semantic analysis, code generation, and optimisation.
- Implemented continuous integration with *Docker*, using *Python* and *Ruby* to automate testing.
- Optimised the compiler by implementing Control Flow Analysis and Array Bounds Checking, extended the language to support type inference and classes.

Implementing support for Pintos Operating System | *C*

- Implemented scheduling, user programs and added virtual memory implementation for an operating system framework of the x86 architecture.

ARM Project | *C, ARM*

- Developed an assembler and emulator for the ARMv6 instruction set.
- Developed a basic abstraction of the *crossyRoad* game which was adapted to the gpio of a Raspberry Pi.

Technical Skills

Proficient: Java, Python, C/C++, JavaScript, HTML/CSS, Haskell
Intermediate: Prolog, SQL(Postgres) **Exposure**: Kotlin, Ruby, Scala

Volunteering

Teacher | *LifeBridge Refugee School* — July 2018 – Present

- Formulated a group of university students to teach children of age groups 7-11 and 14-17 Science, Maths and English throughout the summers of 2018 and 2019.
- Developed relationships and continued to support this community through organising initiatives to support the students and their families during the COVID-19 pandemic.