

# William Moses

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## Projects

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### Quantum Computing

- Learned the fundamentals of Quantum Computing.
- Utilized IBM's cloud quantum computing service Qiskit.

### Human-Computer Interaction: UI/UX Design

- Designed a wireframe for a website to exchange books using Adobe XD.
- Designed a Hierarchical Task Analysis (HTA) diagram to understand the necessary steps to be taken by users to complete a task within a service.
- Worked in a team of 4 to plan the general idea for our website and present it to the Professors.

### Algorithm Design and Analysis

- Wrote multiple pseudocodes.
- Analyze and tracing famous algorithms such as: Insertion Sort, Quicksort, Binary search, and Hashing.
- Best-case, average-case, and worst-case time complexity analysis (Big O).
- String searching: Knuth-Morris-Pratt (KMP).
- Graph Algorithms: Depth-First Search and Breadth-First Search.

### Scheduling and Networking

- Programmed Job Queue algorithm for OS Process Scheduling.
- Utilized scheduling algorithms (Shortest Job First, First Come First Served, Round Robin).
- Learned about the Memory (Stack, Heap) and the Kernel.
- Learned about IPC and Concurrency.
- Sockets programming in C Language.

## Experience

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### PT. PUTRAJAYA SUKSESGEMILANG

Jakarta, Indonesia

June 2022 – August 2022

#### IT Developer

- Developed new script and function to support company's system updates using Python. Classifying and calculating the number of products before storing the data into a table.
- Data manipulation and analysis of company's products.

# Education

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**Bachelor of Science (GPA 3.86)**

**Newcastle University, Newcastle upon Tyne, UK**

September 2020 – June 2023

Modules: Quantum Computing, Human-Computer Interaction, Algorithm Design and Analysis, Operating Systems and Networks, Information Storage and Retrieval, Security Programming

Awards, Certifications, and Activities:

**2020 – 2023** | Vice-Chancellor's International Scholarship

**2020 – 2023** | Member of Indonesian Student Association's Football Team

**2021** | Python for Data Science Course by Schoters

**2022** | "Building a Future from Video Games" public speaking

**2023** | BSc in Computer Science, Specialised in Game Engineering with First Class Honours Classification

## Technical Skills

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Expertise:

- Python
- C#
- C++
- SQL
- HTML/CSS

Other Programming Languages:

- C
- Java
- Go

Spoken Languages:

- Indonesian (Native)
- English (Native)
- Japanese (JLPT N2)
- Chinese – Mandarin (Basic)

Other Skills:

- Full-stack Web Development
- Relational Database Design
- Computer System Design and Architecture
- Excellent in communicating and collaborating
- Great attitude in learning
- Creativity in finding solutions
- Punctual