

# Timothy Jabez Newman

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## Projects

### Analog Music Synthesizer | 2021

#### 1st Year Group Project (Best project in category)

- Created and simulated an 88-key analog music synthesizer in LTSpice
- Considered the product design specifications, costs, power consumption and waveform quality
- Created a Python program to transcribe frequencies from a CSV file to piece-wise voltage level directives in LTSpice for testing

LtSpice Python Latex

### Optiver TraderCraft | 2021

#### 2nd Placed Team in simulated trading competition

- Created a Python trading algorithm and competed with other teams to make highest profit
- Was selected to attend Insights Days program

Python

### Personal Website | 2021

#### Static website with content management system

- Created website from scratch using GatsbyJS for the front-end and Strapi.io for the backend and content management system
- Optimized layout and images for different screen sizes
- Setup continuous deployment on Netlify and Heroku from Github

HTML CSS ReactJS GatsbyJS Strapi.io GraphQL  
NodeJS Netlify Heroku Github

## SKILLS

**Programming:** Python, HTML, CSS, Javascript, C++, SQL

**Tools:** Autodesk Fusion 360, LTSpice, WordPress, Microsoft Excel, Word and PowerPoint

**Other:** Version Control, Web, Deep Learning

**Languages:** English (native), German (elementary), Portuguese (elementary)

## EDUCATION

### Electrical and Electronic Eng | 2020-2024

- Masters, Imperial College London
- **1st Year** overall grade: 74.31%; Modules: Programming for Engineers, Analysis and Design of Circuits, Digital Electronics and Computer Architecture, Mathematics

### International Baccalaureate 41/45 | 2019

- Anglo-Chinese School (Independent), Singapore
- HL Math 7, HL Physics 7, HL Chemistry 7

## Online Courses

### IBM Fullstack Cloud Developer Cert | 2021

- Completed 10 courses on various Application Development and **Cloud technologies**
- These include "Introduction to Containers w/ **Docker**, **Kubernetes** and **OpenShift**", "**Python** for Data Science, AI and Development", "Developing Applications with **SQL**, **Databases**, and **Django**" and "Application Development using **Microservices** and **Serverless**"

### Deep Learning Specialization | 2020

- Completed online course on the basics of **Deep Learning** including CNNs, RNNs, hyperparameter tuning, optimization and structuring ML projects

### Intro to Digital Manufacturing | 2020

- Completed online course on foundational concepts of **Fusion 360** CAD/CAM software
- Learned about digital manufacturing, principles of sustainable design, and manufacturing processes

## ACTIVITIES / INTERESTS

- Technology Associate at IC InvestmentSoc
- Webmaster and Equipment Officer at IC AstroSoc
- Maths tutor for GCSE and A Levels on **EasyA App**
- Amateur violinist and pianist with ABRSM grade 7 Piano