Eusebius Mujuni Ngemera
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http://eusebius.tech

Education

Imperial College London, MEng Electrical & Electronic Engineering — currently 2:1 **2013-17**

- Second year improved over first year, moved up by 10% in class ranking; Algorithms & Data Structures (93%)
- Third year: Artificial Intelligence, Real-Time Digital Signal Processing, Digital System Design
- Fourth year: High Performance Computing, Pattern Recognition, Embedded Systems, Distributed Computation & Networks, Optimisation, Power System Economics
- Final-Year Individual Project: improving open-source project "Structural Optimisation of Arithmetic Programs"

Herschel Grammar School — A*AAA **2011-13**

- A-Levels: Mathematics (A*), Further Maths, Physics and Chemistry

Beechwood School, Slough **2007-11**

- BTECs: 6 grade Distinction*; GCSEs: 6 grade A*-C, including Maths (A*), Science (A*) and English

Work Experience

Python Back-end Developer — YesWeStock, London **Jul-Sep 2016**

- As the sole back-end developer, I added 2 grand features that increased user signup rate by 20%.
- In charge of improving and maintaining the core Python Flask web app along with Amazon Web Services.
- Designed and documented new **RESTful** APIs in partnership with the internal, mobile app team.

Production Team Volunteer — Holy Trinity Brompton, London **Mar 2016 - present**

- I have been involved as director, vision mixer, song-words and camera operator.
- Developed my ability to communicate and work well under pressure during live Sunday services of over 400.

Technical Projects

Eusebius.Tech: technology blog

- A new website with high-quality content for the wider public, attracting over 200 monthly, unique viewers.

USB Oscilloscope: Facebook London Hackathon 2016

- Worked in a team of 3 to produce, in less than 20 hours, an oscilloscope desktop program and accompanying web app which display time-domain and frequency-domain (FFT) views of an ADC's input signal.

Technical Consulting for a specialised Asset Tracker: Group project (A) **May-June 2016**

- As technical leader, I set the team's direction to implement and perfect the system.
- Work involved **node.js** on Tessel, an **Arduino** system, as well as close contact with the client.

Speech Enhancement: Third-year Real-Time Digital Signal Processing project (79%) **Jan-Mar 2016**

- Performed successful noise reduction from speech using frame processing on a TI DSP Starter Kit (DSK).

Accelerating Computations: Third-year Digital System Design project (76%) **Jan-Mar 2016**

- Accelerated a software function with hardware by implementing CORDIC algorithm in **Verilog** on an **FPGA**.

The Prudent Buggy: Second-year group project (A) **2014-15**

- Developed a working, automatic, electronic braking system for infant buggies, with Bluetooth communication (via an Arduino) between handlebar sensors and brakes. I was responsible for the braking subsystem.

Android Development — built a weather app, used JSON querying (Java novice)

Awards & Responsibilities

Awards

- 2013-2017 IET Diamond Jubilee Scholarship, awarded to less than 400 engineering students nationwide.
- Gold in the 2011 UK Senior Mathematical Challenge; advanced to the Olympiad of 1,000 students nationwide.

Societies

- Imperial College East African Society president. Collaborating with other universities for bigger social events.