## **Eusebius Mujuni Ngemera**

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#### 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: Individual: 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

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

# **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.