

Yaohua Zhang

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About Me

Technical Skills Python, C/C++, MATLAB, Git, Linux, Altium Designer, Sentaurus TCAD, Arm Assembly, Verilog, LabVIEW
Languages Full Professional Proficiency in English; Native Speaker in Mandarin
Interests Hiking, Badminton, Chess

Employment

April 2019–August 2019 Embedded System Engineer Intern, DnaNudge Ltd

- Designed a power management adaptor board using Altium Designer from scratch and worked with the supply chain manager to liaise with PCB manufacturers. Proficient in engineering query documents and industry jargon like V-cut and IPC-A-600/IPC-6012 standards.
- Developed an entire I²C device library for ICM-20648 (motion sensor unit) and nRF52832 (microcontroller) to aid future firmware (DnaBand) R&D. Proficient in embedded system development, Nordic SDK, Arm Keil MDK. Looking to contribute to the highly referenced open-source device library (I2C Device Library) by Jeff Rowberg (awaiting approval).
- In charge of product (DnaBand) usability testing and design verification, authored extensive product test procedures and other relevant technical files. Gained insight into compliance testing, CE marking and IP code.
- Designed a 4-layer evaluation board (150+ components, 400+ connections) in Altium Designer to aid future hardware (DnaBand) R&D.

Summer 2018 Research Intern, School of Electrical and Electronic Engineering, Nanyang Technological University, Singapore

- Supervised by Prof Y.P. Zhang. Investigated antenna performance and analysed the differential integrated antenna. Wrote a MATLAB script which compared the singled-ended to differential patch antennas and a professional report on the findings.
- Studied advanced antenna theory (Postgraduate level) and developed proficiency with MATLAB for numerical and analytic modelling of antenna performance.

Summer 2017 Research Intern, Undergraduate Research Opportunity Program (UROP) Imperial College London

- Supervised by Prof A. Manikas. Successfully completed an 8-week project on Software Defined Radio and its applications using USRP hardware and LabVIEW. Coded a real-time communication system that can transceive text messages using Quadrature Phase Shift Keying (QPSK).

Education

2016-2020 MEng Electrical and Electronic Engineering, Imperial College London Current average: First Class (73%)

Courses include: Analogue, Digital, Power Electronics; Instrumentation; Semiconductor Physics; Embedded Systems; Digital Signal Processing; Linear Algebra; Computer Architecture; Algorithms & Data Structures

- Excellent academic performance and consistently ranked top 20%-30% of cohort.

2010-2015 Raffles Institution, Singapore

- SINGAPORE-CAMBRIDGE GCE A Levels: Chemistry (A), Physics(A), Mathematics(A), Economics(A), Project Work (A), General Paper (A) [Perfect University Admissions Score]

Volunteering

Oct 2018- Present Hall Senior, Woodward Buildings, Imperial College London

- Provided pastoral support for incoming freshman students and helped to organise large-scale hall events.

Nov 2017- Present President's Ambassador, Imperial College London

- Involved in a visible, high-profile role to represent the College at official events such as Open Days etc.