CHAN JUN SHERN

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Education

2014-Current **Imperial College London**
3rd year Electrical and Electronic Engineering (MEng) student
Expected graduation 2018 (Predicted 1st Class Honours)

Best modules:	*Algorithms and Data Structures*	94%	*Digital Electronics*	78%
	Software Engineering	84%	*Computer Architecture*	76%

Others: *Artificial Intelligence*, *Machine Learning*, *Embedded Systems*, *Analysis of Circuits*, *Signals and Linear Systems*, *Analogue Electronics*, *Control Engineering*, *Mathematics (Linear Algebra, Probability & Statistics, Numerical Methods)*

2012-2013 **Methodist College Kuala Lumpur**

Did A-Levels in :	*Maths*	A*	*Physics*	A*
	Psychology	A*	*Economics*	B

Awards

2014 Maxis Scholarship for Excellence
(Full scholarship for degree at Imperial College London - **1 of 10 scholars selected from over 5000 applicants**)
2012 Merit Scholarship (Methodist College Kuala Lumpur)
2011 Outstanding Achievement Award - 10/10 A's in Malaysian national examinations (Wesley Methodist School)

Skills

Programming :	C	C++	Python	R	HTML	CSS	JavaScript	php
	Prolog	F#	C#	Matlab	Bash	Java	php	
Hardware :	Arduino		Raspberry Pi		FPGA & Verilog		Circuit design & analysis	
	PIC		AVR		CAD for 3D printing		Laser cutting	
IT :	Linux System Administration		Version Control (Git & GitHub)		Game Development (Unity)			
	Graphic Design (Adobe Photoshop, Illustrator)				Video Editing (Adobe Premiere Pro)			

Work Experience

2016 **Engineering Lead** for Imperial College Tech-Art Installation: Sensorium
- The project was built for exhibition at Imperial College London's annual event Imperial Festival 2016. The festival attracted **15,000 visitors**, many of whom explored our exhibition consisting of a 5m long, full-body LED mirror (6720 LED's) where silhouettes of people are displayed in real time
- **Led a team of 8 engineers** over the course of 3 months in planning and implementation, and worked closely with other teams within the project consisting of people from a variety of backgrounds including scientists, design engineers, art installation specialists and fashion designers
- More information about the project online at https://github.com/JunShern/Sensorium

2016 **Data Analysis Intern** at Maxis Berhad Malaysia (Telecommunications company)
- Used R to perform customer analytics tasks, and **took initiative to create a web-app using R and R Shiny** to streamline a labour-intensive part of the workflow
- Available online at https://github.com/JunShern/sliced

2016 **Engineering Consultant** (Paid freelance contract) for The Tile Project
- The project was a capacitive touch-based human-computer interface developed at Royal College of Art, London
- Prototyped electronics on Bare Conductive's Touch Board (Arduino-like microcontroller), and created interactive visuals in Processing to demonstrate how the controls map onto a computer
- Project website: http://www.tileproject.info

Projects

2016 **junshern.github.io** *(Personal website)*
- Built a portfolio website which dynamically generates project information from my GitHub profile
- Website link: https://junshern.github.io/

2015 **Pyano** *(Personal project)*
- Wrote a powerful open-source virtual MIDI piano keyboard in Python, which allows users to use QWERTY keyboards as piano (MIDI) keyboards, routable to software synthesizers and other MIDI-compatible programs
- More information (and demo video) available at https://github.com/JunShern/Pyano

2015 **Neurospell Brain-Computer Interface** *(2nd year Electrical and Electronic Engineering project)*
- Worked in a team of 7 members over the course of 6 months to create a low-cost Brain-Computer Interface device to allow motor-impaired people to type on a computer keyboard
- Personally in charge of writing a Python program which flashes letters in a grid to stimulate a response in the user's visual cortex, and wrote the interface between the custom UI and signal processing software OpenVibe
- **Integrated predictive text algorithms** to improve typing speed
- Project website: http://www.ee.ic.ac.uk/jorn.voegtli14/yr2proj/default.html

Achievements & Responsibilities

2016-2017

Imperial College Advanced Hackspace - Student Champion (EEE)
- Regularly involved in the Advanced Hackspace which runs hackathons and classes, and provides prototyping facilities such as laser cutters and 3D printers for the Imperial College community
- Point-of-contact for entire Electrical and Electronic Engineering Department regarding Hackspace activities, and **maker evangelist** to encourage students to get involved with hands-on projects in the Hackspace

Imperial College Energy Society - Webmaster
- Created new society website, led rebranding by designing a fresh new logo and online visual identity which helped **drive a >200% increase in society membership** (went from 100 members last year to 350 members this year)
- Gained experience in web development, in particular using php and CSS within a Wordpress.org setup
- Website currently hosted at https://www.union.ic.ac.uk/scc/energy/
- **Helped secure a £1,000 grant** from the Imperial College Advanced Hackspace, for the running of society projects including a fusion reactor design project

TEDxImperialCollege Organizing Committee - Speaker Coordinator
- In charge of identifying and inviting high-impact speakers to speak at TEDxImperialCollege 2017, and led the development of the overarching event theme, "Blueprints"
- Active facilitator and contributor to committee discussions on all aspects of event organization

2015-2016

IC Hack '16 *(Imperial College Hackathon 2016)*
- **Special Prize Winner "Best use of Amazon Web Services":** Worked in a team to create a location-based web-application which recommends free parking spaces from drone camera images

HackScience 2016 *(Hackathon for lab automation tools)*
- **Prize Winner (1st Runner Up)**: Our prize-winning "Automated Fractioning Column" detects the infrared absorbance of an experimental solution, distributes the solution into separate vials, and uploads experiment data to a cloud server for visualization. The project has the potential to save hundreds of hours of human labour a day.
- **Outstanding Individual Prize:** Special honour received for helping and giving technical advice to other participants, as well as for being a key contributor to my team

Massively Open Online Courses (MOOCs)

Extra-curricular online courses pursued for my own interest (consisting of lectures, quizzes & programming coursework)

2016 **Intro to Artificial Intelligence** by Sebastian Thrun and Peter Norvig (Udacity)

2016 **Intro to Computer Vision** by Aaron Bobick (Udacity)

2015 **Machine Learning** by Andrew Ng (Coursera)

2014 **Johns Hopkins Data Science Specialization** by Jeff Leek, Roger D Peng & Brian Caffo (Coursera)