# Fawaz Shah

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#### **Education**

#### BEng. Mathematics and Computer Science (Joint Honours), Imperial College London [2017-2020]

- Current modules of interest: Java, Logic, Graphs and Algorithms, Applied Methods and Linear Algebra
- Other 1<sup>st</sup> year modules: C, Haskell, Reasoning about Programs, Foundations of Analysis, Mathematical Methods, Algebra and Analysis

## St. Olave's Grammar School [2010-2017]

- A Levels: Maths (A\*), Further Maths (A\*), Chemistry (A\*), Physics (A\*) & EPQ (A)
- AS Levels: Computing (A)
- GCSEs: **10** A\*s and **2** As, including A\*s in Maths, English Language, English Literature, Biology, Chemistry, Physics and Computing

### **Technical Experience**

- Written Python code for maths-intensive personal projects, such as matrix inversion and manipulation of coprime theory and the Mandelbrot set
- Implemented Haskell in scenarios such as writing a mail-merge program, generating fractals using Lindenmayer systems and creating a symbolic calculus interpreter
- Implemented Java in situations such as solving the shortest path problem, scheduling timetables and basic critical path analysis
- Written a countdown web app in HTML5, using CSS3 for styling and JavaScript for logic-handling
- Hosted and managed a public web server on a Raspberry Pi, using knowledge of Bash and Linux

I am familiar with git and programming on Unix systems. Many of my programs are available to download from <a href="mailto:fawazshah.github.io">fawazshah.github.io</a>.

# Positions of responsibility

# Imperial College Joint Maths and Computing (JMC) Year 1 Representative [2017-2018 academic year] Current duties include:

- Collecting feedback from other first year JMC students and passing it on to the coordinators of the degree
- Reporting any academic issues to relevant lecturers or administrative staff
- Working with senior members of staff and other representatives to solve problems faced by JMC students

#### President of St. Olave's Computer Science Society [2016-2017 academic year]

- Scheduled regular meetings throughout the year, presented talks on significant topics such as quantum computing and artificial intelligence, and encouraged younger students to give presentations themselves
- Expanded the size of the society, by opening it up to all years instead of just 6<sup>th</sup> form and promoting it heavily
- Organized a presentation given by a senior developer at Oracle, achieving record turnout to the Society
- Helped organize the St. Olave's Programming Competition, a 1-term-long coding competition for younger students

# St. Olave's Computing Prefect [2016-2017 academic year]

- Mentored a GCSE Computing student, checking up regularly and ensuring he was coping well with the curriculum
- Arranged St. Olave's Raspberry Pi club, helping younger years to learn Bash and Python

#### **Notable Achievements**

- Published a dissertation on "The socioeconomic effects of artificial intelligence in the future" in the St. Olave's Academic Journal
- Nominated for Computing Student of the Year by the St. Olave's Computing Department