

# JAYATI SARKAR

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## EDUCATION

### Imperial College London, UK - Computing (MEng)

October 2016 - Present

- On track for a First Class Honours
- Elected DoCSoc (Imperial College Computing Society) Social Events Coordinator 2018-19
- Entrance Scholarship, awarded to 10 students, at the beginning of first year

### Gems Modern Academy - Dubai, UAE

2012 - 2016

- ISC Board Examinations (Grade 12) - 97.5%
- ICSE Board Examinations (Grade 10) - 97%
- KS Varkey Merit Scholarship, a 50% scholarship, for Grades 11 and 12

## INDUSTRIAL EXPERIENCE

### Morgan Stanley

June 2018 - August 2018

#### Summer Technology Analyst

- Designed and developed a continuous integration and delivery pipeline with AxiomSL (financial regulatory reporting tool).
- Worked on combining the Jira Project Tracking API with version control, using Python and SQL, to promote agile software development in the team.

### Eko India Financial Services

July 2017 - August 2017

#### Software Engineering Intern

- Worked at a financial-tech startup on the automation testing of their RESTful APIs that return responses in JSON format.
- Implemented unit testing of the MySQL database using JDBCTest and Mockito (for mocking the database).
- Gained more understanding of the development of web applications using Apache Struts and JavaScript.

### Victory Falcons Electronics Trading

July 2015 - August 2015

#### Summer Intern

- Worked with software developers to understand the processes involved in the development of Hospital Information Systems and data management using MSSQL Enterprise Database.
- Developed a client for an existing service using Java as well as aided with the data migration to bring the system up to date with their in house "MedicWorks" software.

## PROJECTS

### Medify - Partnered with Microsoft

Java (AndroidSDK), Google Vision API, Firebase, Git

- Developed a medication verification and tracking Android application that checks for dispensing errors by using Optical Character Recognition to scan the prescription and medication barcode to verify that the medication was dispensed correctly as well as allows users to set reminders to take the medication.
- Set up authentication for multiple users and enabled them to be a part of a group and share their medication schedule with other members of the group.

### PintOS Operating System

C, Git

- Led a team to develop an operating system for the x86 instruction set architecture. Implemented thread scheduling, system calls and management of virtual memory. **Achieved over 85%.**

### WACC Compiler

Java, ANTLR, Git

- Worked in a team to develop a compiler for the WACC language. Implemented the front end and the back end of the compiler and added functionality of function overloading, loops, and classes with inheritance to the language, as an extension. **Achieved over 95%.**

### ARM11 Emulator and Assembler

C, Python, Git

- Led a team to develop an emulator and assembler for a subset of ARM11 instructions which were eventually run on a Raspberry Pi. Implemented a piano, with buttons for LED lights that were powered by the GPIO pins using C and Python, as an extension. **Achieved over 90%.**

### Concurrent Picture Processor

C++, Git

- Explored C++ through implementing a multi-threaded system for processing and transforming many photos in a thread-safe way, as well as concurrently transforming each photo. **Achieved over 90%.**