

AKANKSHA SHARMA

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EDUCATION

Imperial College London
MEng Computing

September 2018 - Present
Year 2 - 1st Class Honours

The British School of Kuwait

September 2014 - June 2018

- A Levels - Maths: A* Further Maths: A Chemistry: A Physics: A
- IGCSE - 9 A* including Maths, Physics, Chemistry, Biology, English, Computer Science, ICT, Design and Technology.

WORK EXPERIENCE

Alghanim Industries
IT Intern

July 2019 - August 2019

- Learned about the inner workings of the IT Service department and Service workshop and helped deploy company image onto devices.
- Developed and highlighted marketing strategies to aid the transition to a CMDB.
- Took calls for the service desk to help callers with concerns, open tickets, and learned the workings of their Active directory manager.
- Helped modify their current phone reimbursement plan in the design stage of the waterfall model.
- Delivered presentations to company executives on my progress, highlighting potential solutions for the areas of concerns identified.

PROJECTS

ShopWise - Runners Up ICHack 20 (Money For Good)

- A self-checkout supermarket iOS application in Swift. Uses suite of micro-services running through a Python Flask backend deployed on Heroku. Utilises CISCO's Meraki API to create a synchronised item grabbing verification system storing timestamped snapshots.
- A blockchain ecosystem (using Kaleido) with transparent transactions and a smart contract (using Solidity) between users to track food production stages fed to a REST API linked to the app.

CodeSatori -WebApps Project

- An online platform (deployed on Heroku) for **teachers** to manage classes, set, distribute and collect programming assignments, and for **students** to access and complete their coding tasks using an embedded compiler.
- Full-stack development: We used JavaScript with React for our front-end, Java for our backend (using several java libraries like Spring Boot, Mockito, Hibernate) in conjunction with Google's Firebase for user authentication and PostgreSQL for our database.
- We adopted an AGILE approach for our project development monitored using TRELLO.

- The evolution of our UI and UX design was governed by weekly distinct user testing iterations from our stakeholder - Computing teachers and students from Merchant Taylors' School.

WACC Compilers Project

- Group project written in Kotlin to make an ARM compiler for a C-like language called WACC.
- Uses DevOps technologies such as Gitlab CI/CL, Docker to create a pipeline. Project is split into frontend and backend.
- Frontend includes creating a lexer and parser (done using antlr), building an AST, enforcing semantic checking and error handling. Backend includes code generation, optimisations and extending the language.

Pintos OS Project

- This project comprised of 3 tasks: Task 1 involved implementing a priority and a BSD scheduler.
- Task 2 involved creating user programs that allow interaction with the OS kernel via system calls.
- Lastly, task 3 involved adapting the OS to use virtual memory, catching race conditions and implementing a functional level of concurrency.

Basic Banking Program

- During a summer program at Oxford Royale Academy, developed my understanding of scientific programming, web design and informatics.
- Created a program mimicking the functions of a banking system (i.e. money transferal, withdrawal etc.) in FORTRAN as well as a website following its process.

SKILLS

Programming experience	C, Java, Haskell, Kotlin, JavaScript, Python
Software & Tools	Latex, Git source control, MS Office 365, TDD, Figma, GitLab CI/CL Hexagonal architecture
Operating systems	Windows and Linux
Web design	HTML, CSS, JavaScript
Modeling and Analysis	AutoCad, Excel, Pandas, UML
Database management	MySQL, PostgreSQL, MS Access
Languages	Proficient - English, Hindi Limited - Arabic, Spanish
Soft skills	Critical thinking, effective communication, public speaking through debate, MUN experience

ACHIEVEMENTS

- Active member of UNICEF@ICL, Women in STEM and Amnesty International.
- National Debate experience: BSME Debate Tournaments 2014-2018.
- Head of Charities committee: organised events to raise for charities e.g. Cancer Research UK, British Heart Foundation
- BSK Student body representative - Senior Prefect
- British School of Kuwait Award of Academic Achievement - Years: 2015 - 2018
- Duke of Edinburgh International Award Bronze/Silver