

Mr Rajat Awasthi

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Summary

Programming Languages:

- Highly experienced in multiple programming languages like C++, Python, Java, HTML, PHP, C# and SQL through multiple personal and academic projects

Software Development Cycle:

- Developed softwares and applications using Scrum and Rapid Application Development (RAD) methodologies of Agile software development cycle

Large datasets:

- Created a large dataset from scratch to manipulate and visualise data for final year undergraduate project using Python and its Pandas library

Software skills:

- Good Understanding of Linux with knowledge of Networking, File Systems, Shell Scripting (Bash)
- Good knowledge of Version Control (GIT) and various software packages like Microsoft Office, R, MATLAB, Android Studio, MVC Architecture through academic projects and previous work experience
- Basic Understanding of Natural Language Processing and Applying Deep Learning on Signal Processing

Education

Sept 2015 to Jun 2019 **BSc. (Hons) Computer Science (Obtained First)** **Brunel University London**

Key Modules:

Final Year Project (A+)

Year 2 Group Project (A+)

Algorithms and their Applications (A)

Artificial Intelligence (A)

Cybersecurity (A-)

Software Engineering (A-)

March 2015

All India Senior School Certificate Examination

Puranchandra Vidyaniketan, India

English (95%) Physics (62%) Computer Science (53%)

March 2012

All India Secondary School Examination

Puranchandra Vidyaniketan, India

English (08/10) Computer Science (08/10) Social Science (08/10) Maths (07/10) Science (07/10)

Relevant Work Experience

July 2017 to July 2018 **Desktop Support Analyst** **Simbec-Orion Group, UK**

- Provided first line IT support (On Call and via SysAid Helpdesk System) to all the Simbec-Orion staff
- Worked in a team of two on a Project Management Solution - Clarizen to do various tasks such as administration, support, reporting, customising and configuring
- Wrote Standard Operating Procedure documents for the IT Department
- Responsible for providing (ordering and configuring) IT devices and conducting IT Induction and Presentation for all the new starters in the company

May 2014 to August 2015 **IT Assistant** **National Switchgear Controls, India**

- Learned to route network cables and install a local network with the help of professionals and manage a small scale local network through Ntopng to understand the network traffic
- Assisted in the CAD design of products by working with a team of 4 to design a basic prototype of various Electric control panels
- Maintained a database through Microsoft Access to update attendance and salary records of Employee
- Provided general IT support to office employees through desk side visits and emails

Project Work

Python Machine Learning Project: Final year dissertation developing an intelligent transport arrival prediction system for Travel for London (TFL) transport service using historical data with Data Visualisation and Machine Learning techniques

- Created a dataset from scratch using TFLs open data from its Unified API service
- Pre-Processed the data by cleaning and integrating it using Pandas Library in Python
- Used Plotly (Dash) library in python to visualize the data and analyse any patterns and similarities

- Worked with Machine learning libraries like TensorFlow and scikit-learn to create Recurrent Neural networks (Long Short-Term Memory) and ARIMA Time Series Models

Android Application Development: A Group Year 2 Android App project which lets user filter food choices based on location, distance and type of food. Used Scrum methodology for the development of the project.

- Produced initial UI prototypes through Proto.io and Fluid UI to make a base to build upon
- Researched Android app development through various books, journals and websites to get started on the coding
- Used GitHub as Version Control to track multiple version of the app and the work done by different members
- Completed the front-end programming, implemented features like GPS, Recycler View, Google Maps API
- Worked on the back-end by setting up a dedicated server with MySQL database, implemented the user registration system and filtering the food options through postcode
- Application Nominated for Made in Brunel: Software Innovation, Software Development Prize
- Gained communication skills, developing ideas for the app with other 4 members of the group

Search Engine Development: Led a team of 3 to develop a search engine using XAMPP; gaining good leadership and communication experience in a group project environment.

- Researched about the quickest and efficient way to set up a search engine by reading books and searching the web
- Planned a rough outline of the project with other members of the group to create a set of requirements
- Applied prior knowledge of PHP language to code the server-side scripting of the search engine
- Set up and configured the web server with XAMPP and created a basic database structure for table entries with phpMyAdmin
- Tested the code for bugs by repeated use of search queries to get the search engine to be user friendly
- Gained leadership skills by overseeing the front-end coding and the UI design of the project

Website Development: Working together in a team of 4, developed and managed a website to enhance the marketability of a small-scale business.

- Evaluated PHP as the best possible server-side scripting language to connect a user login database to the front end of the website
- Created a UI prototype of the website in collaboration with other members of the team to have a basic layout structure to start from
- Coded the HTML5 and PHP part of the website going back and forth with the CSS design team to speed up the development process
- Improved communication skills working with a group of previously unknown people to complete the project to the highest possible standard

Parking Management System: A school project to develop a multi-threaded client server system that keeps track of the number of available spaces as cars leave and enter a multi-story car park.

- Designed the system based on the requirements of the project and chose C++ programming language for implementation because I had prior experience with C++
- Read and practised multithreading in C++ before attempting the development
- Implemented the design, did white box testing and documented the results

Achievements

- Represented my school at an Inter-School Information and Technology Quiz
- Successfully organised numerous technical inductions and presentations for non-technical audience and business stakeholders at Simbec-Orion's desktop support analyst role
- Won a contest to redesign the weekly school magazine using Adobe Photoshop and Adobe After Effects to replace the old design
- Advertised the school's Information Technology club through paper pamphlets to increase awareness and interest of younger students to join the club
- Advertised a school marathon event through the school's website and word of mouth

Interest

I am an active and sporty person with a keen interest in sports like Football, Cricket and Formula One. I have represented my school in Inter-School cricket tournaments. I also like learning about computer hardware and have assembled desktop PCs for my friends and family. I like to visit new places, learn and experience the lifestyle of others.

References available on request