

# PREETPAL SINGH

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A hardworking and ambitious individual with a first-class honor in Software Engineering. A keen interest in learning new technologies to improve my current IT skills and have a passion for developing various software solutions, enabling me to face overcoming challenges comfortably. As a graduate, I am seeing a software related position to practice my knowledge and experience gained through study projects and contribute with my skills to benefit the operations of the organization that I work for.

## SKILLS

### PROGRAMMING

- JAVASCRIPT
- REACT JS (LEAST EXPERIENCE)
- NODE JS

### WEB & DATABASE

- HTML
- CSS
- MYSQL
- POSTGRESQL

### TECH

- GIT
- GITHUB
- GOOGLE CLOUD PLATFORM
- JEST TESTING
- MACHINE LEARNING
- MS OFFICE

## EXPERIENCE

### 07/2019 – PRESENT

#### **SUPERVISOR**, SHELL BASSETT PETROL STATION, SOUTHAMPTON

Worked as a part-time cashier and performed different roles when I had the opportunity to work full-time. Became a supervisor, led a group of 5-6 team members, assigning various roles to each member to help the business run smoothly. Managed the whole Shell site involving tasks such as creating a weekly Rota for the staff, placing orders with several suppliers, managing orders, cashing up etc.

### 08/2018 – 08/2018 (2 WEEKS)

#### **WORK PLACEMENT**, IKEA SOUTHAMPTON

During college, a work placement opportunity at IKEA for 2 weeks through BTEC Business Studies' course to learn and experience working environment of different departments of the business, such as Finance department, IT department, Human resources, and Marketing team. First experience of the working environment and learning key employability skills to succeed as a business.

## EDUCATION

09/2019 – 06/2022

**SOFTWARE ENGINEERING (FIRST CLASS DEGREE),** UNIVERSITY OF PORTSMOUTH

### *Courses*

- Application Engineering
- Data Structure and Algorithms
- Software Engineering Theory and Practice
- Database Principles
- Scalable Software Engineering
- Robotics
- Neural Networks and Genetic Algorithm

Software demand in the future and the passion about coding derived the career change from Business Studies to Software Engineering. Had the opportunity to develop a website in the second year of the university and to learn several other software tools and practices such as data structure and algorithms as well as various software development lifecycles.

Towards the start of the third year, I became more passionate about the “coding world”. In result, my optional modules involved developing a virtual robot in Robotics using LUA programming language. The second optional module was Neural Networks and Genetic Algorithms to enhance my knowledge of machine learning and AI. Ultimately, achieving high grades in both modules towards the end.

During Scalable Software Engineering module, I have gained some experience of React.js with some experience of its components and hooks functionality. This module mainly focused on Cloud Computing on Google Cloud Platform learning key techniques such as deploying website on the cloud and using virtual machines.

Additionally, the final year project was about developing a website that measures the behaviors/skills of car drivers. For this project, I have researched and developed my knowledge of a complete software lifecycle from software specification to delivering a software solution and used more advanced technologies such as machine learning models and data transformation techniques. [!\[\]\(3211b5d1d968fc1665909b34f9f16010\_img.jpg\)](#)

09/2017 – 06/2019

**BTEC BUSINESS STUDIES (DDM),** RICHARD TAUNTON SOUTHAMPTON

This course developed my knowledge of various business aspects from the importance of fulfilling customers’ needs and the role of work force to have a successful business in the market. There are several other business theories including Managing an Event, Personal and Business Finance as well as developing key personal skills such as working as a team, communication skills and creative and critical thinking.

11/2014 – 06/2017

**CANTELL SCHOOL, SOUTHAMPTON**

- GCSE’s: 8 obtained at grade A\*- C, including Mathematics (6), English (4) and Science.

# PERSONAL PROJECTS

11/2020 – 06/2021

## PEER REVIEW WEBSITE (FULL STACK)

- Built front-end for users to create a unique login, upload PDF files, share files, live chat, feedback on each other's work.
- Implemented using Express REST API on top of Node JS for API calls.
- CRUD operations implemented using sqlite3 NPM module.
- Tech Used: **HTML, CSS, JavaScript, Node JS, Asynchronous environment (async/await), SQLite.**

11/2021 – 05/2022

## MEASURING DRIVING BEHAVIOUR USING PHONE SENSORS AND APIS (FULL STACK)

- Built front-end for users to create a unique login, allow location, and motion sensor permission, measure driving behavior, view driving results.
- Implemented using Express REST API on top of Node JS for API calls.
- CRUD operations implemented using NPM sqlite3.
- Long Short-Term Memory machine learning model trained using driving events dataset.
- Tested system's components using NPM Jest.
- Tech Used: **HTML, CSS, JavaScript, Node JS, TensorFlow JS, GPS coordinates, Mobile accelerometer, and gyroscope sensors, Asynchronous environment (async/await), SQLite.**

01/2022 – 05/2022

## TAILORED BUSINESS INFORMATION RECOMMENDER SYSTEM (BACK-END)

- Worked on this project as a part of a team during university.
- Developed a web crawler (Cheerio JS) with Puppeteer for web-scraping.
- Implemented models such as The Bag of Words, The Word2vec for data extraction.
- Tech Used: **JavaScript, Node JS, Cheerio JS, Puppeteer, Asynchronous environment (async/await), JSON documents.**

# ACTIVITIES

## LANGUAGES

- |           |                              |
|-----------|------------------------------|
| • English | • Hindi                      |
| • Punjabi | • Italian (Least experience) |

## INTERESTS

- |                |                       |
|----------------|-----------------------|
| • Programming  | • Playing Cricket     |
| • Gym workouts | • Learning new skills |

References available on request