

Prarthana Kandwal

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github.com/prarthana1998 | Portfolio

Education

MSc Advanced Software Engineering

September 2022-September 2023

King's College London | London, UK

- **Dissertation:** Use of Machine Learning in Accelerating Drug Discovery (**Distinction**)
- **Relevant Coursework:** Software Development for Financial Systems, Software Testing, Model-Driven Development, Big Data Technologies, Security Engineering, Security Management

B.Tech, Information Technology

August 2017-May 2021

Indira Gandhi Delhi Technical University | Delhi, India

- **Relevant Coursework:** Artificial Intelligence, Cloud Computing, Object Oriented Programming Language

Experience

Software Engineer

August 2021 – August 2022

Hewlett Packard Enterprise | Bangalore, India

- **Reduced manual testing efforts by 75%** by conducting comprehensive testing of REST APIs using Python as the main scripting language, contributing to the streamlining of the HPE Backup and Recovery cloud product
- Achieved a **2x** improvement in **Kafka data stream processing** speed compared to previous methods by developing and optimizing Python producer code for seamless integration with **Apache Druid**

Software Engineer Intern

January 2021 – July 2021

Hewlett Packard Enterprise | Bangalore, India

- Developed an automated testing framework with Cypress to cover critical customer workflows, leading to the identification and resolution of **200+** bugs before release; ensured a smoother user experience for all customers
- Engineered a local environment with integrated microservices that enabled simultaneous test execution, enhancing feedback loops and code quality, which benefited over **15 developers** in the agile development process

Mobile Application Intern

June 2020 – July 2020

ETI Labs | Delhi, India

- Led a team of 4 in utilizing **Flutter** for cross-platform app development, enabling faster deployment and reducing the complexity of managing separate codebases for iOS and Android
- Implemented **Firebase** as the backend, streamlining development with a **30%** reduction in setup time compared to alternative solutions

Projects

Professional README Generator | JavaScript, Node.js

February 2024

- Developed a command-line application leveraging **Node.js** and **JavaScript** to dynamically generate professional README.md files for accessibility & collaboration among developers
- Implemented user input functionalities using the **Inquirer package** to gather project details, including objectives, installation instructions, and contribution guidelines

Use of Machine Learning in Accelerating Drug Discovery | Python

May 2023 - August 2023

- Employed a range of molecular descriptors and regression methodologies to construct predictive models for acetylcholinesterase inhibitors, resulting in a notable R-Squared value of 0.74
- Incorporated four machine learning algorithms including **Support Vector Regressor**, **Random Forest**, **K-Nearest Neighbors (KNN)**, and **XGBoost**, resulting in improved prediction accuracy and overall model performance

Technical Skills

Languages: Python, C++, JavaScript

Technologies: HTML, CSS, Bootstrap, Node.js

Databases: SQL, Firebase

Developer Tools: Jira, Confluence, Git, Cypress