

# Prarthana Kandwal

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## Education

### MSc Advanced Software Engineering (Merit)

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 (Distinction)

August 2017-May 2021

Indira Gandhi Delhi Technical University | Delhi, India

## Experience

### Software Engineer

August 2021 – August 2022

Hewlett Packard Enterprise | Bangalore, India

- Conducted comprehensive testing of **REST APIs** using **Python** as the main scripting language, resulting in **75%** decrease in manual testing efforts in the HPE Backup and Recovery cloud product
- Spearheaded the development and optimization of Python producer code to facilitate the seamless ingestion of **Kafka** data streams into **Apache Druid**, resulting in a **30%** reduction in data processing time
- Implementation of a local environment with microservices resulted in a **30%** reduction in testing time due to parallel test execution and improved isolation, leading to faster feedback loops and enhanced code quality

### Software Engineer Intern

January 2021 – July 2021

Hewlett Packard Enterprise | Bangalore, India

- Development of user-facing features using **TypeScript**, enhancing code robustness and maintainability
- Leveraged **Cypress** to automate both end-to-end customer-centric test cases and functional test scripts for HPE Backup and Recovery software, achieving a **50%** reduction in testing time and enhancing overall product quality
- Collaborated with a cross-functional team of 15 engineers at HPE to enhance the user interface of the backup and recovery project, achieving a seamless GUI in an agile development environment

### Mobile Application Intern

June 2020 – July 2020

ETI Labs | Delhi, India

- Utilized **Flutter** for cross-platform development, resulting in a **40%** reduction in development time compared to separate native implementations for iOS and Android
- Implemented **Firestore** 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
- Utilized an array of machine learning algorithms including **Support Vector Regressor**, **Random Forest**, **K-Nearest Neighbors (KNN)**, and **XGBoost**

## Technical Skills

**Languages:** C++, Python, JavaScript, Dart

**Technologies:** HTML, CSS, Bootstrap, Node.js, React(Beginner), Linux

**Databases:** SQL, Firebase

**Developer Tools:** Jira, Confluence, Git, Cypress