

Aditi Jain

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PROFILE

Passionate and results-driven computer science graduate with a track record of delivering high-impact software solutions across IoT, big data, and systems development. Adept at writing efficient, scalable code in multiple programming languages, with hands-on experience in backend optimization, mobile app development, and database management. Thrives in fast-paced environments, leveraging strong analytical skills, problem-solving abilities, and adaptability to drive innovation. Awarded Best Final Year Project for excellence in mobile and IoT development. Open to dynamic roles across the UK and Europe, eager to contribute and grow in a collaborative, forward-thinking team.

SKILLS

Programming: Python, Java, Kotlin, C++, Rust, HTML, CSS, JavaScript

Databases: NoSQL (Apache Cassandra, Firebase), SQL (MySQL)

Tools & Platforms: GitHub, Jira, Slack, Google Cloud Platform

Design & Prototyping: Figma

Interpersonal: Problem-Solving, Communication, Teamwork, Adaptability, Ownership, Critical Thinking

Foreign Languages: Hindi & English (Native), Spanish (A2), German (A2)

WORK EXPERIENCE

Pause, App Developer, Remote [University of Warwick] Jul 2024 – Sep 2024

- Engineered UI components for Android, following MVVM architecture, reducing development time by 20%.
- Converted Figma designs into functional interfaces, enhancing app aesthetics and usability.
- Integrated multi-language support by adding translations for six languages, enhancing accessibility and improving the user experience for a broader audience.

DataStax Inc, Software Engineer, Remote [Leicester] Jun 2022 – Sep 2023

Astra Compaction in Rust – Project 1

- Optimized Cassandra's compaction efficiency, cutting CPU and memory overheads by 10%.
- Accelerated data processing by 20% by profiling and fine-tuning Rust and Java performance using JMH, Perf, and Async-Profiler.

Edge Data Synchronisation – Project 2

- Designed and implemented an async data replication library, ensuring seamless synchronization between edge devices and the cloud.
- Integrated Rust-based synchronization with Android via Foreign Function Interface (FFI) and Java Native Interface (JNI), improving data transfer efficiency by 40%.
- Refactored and streamlined APIs to enhance developer experience and system coherence.
- Built and demonstrated a sample app, enabling third-party developers to integrate the synchronization library effectively.

University of Leicester, Teaching Assistant, Leicester Oct 2021 – Mar 2024

- Delivered programming support to 200+ students in Python, Data Structures & Algorithms, and Data Analytics.
- Boosted student problem-solving skills by breaking down complex concepts, improving pass rates by 15%.
- Increased lab engagement by 10% by fostering interactive learning and strengthening student relationships.

PROJECTS

IoT Smart Home Application

May 2024

- Developed an intelligent home automation system integrating Python, C++, and Android, improving real-time responsiveness by 55%.
- Connected IoT devices (Arduino, Raspberry Pi) to Google Cloud, enabling seamless automation.

Big Data Analysis & Cluster Modelling for Patient Readmission (Group Project)

Mar 2024

- Built a big data analysis model using Pandas, NumPy, and scikit-learn to predict patient readmission.
- Applied Logistic Regression and Random Forests, achieving a 90% model accuracy.

GEVS – An online Voting App

Jan 2024

- Developed an Android app using Android Studio and Firebase for secure voting, and real-time election results, while also implementing RESTful APIs with Node.js to manage election data and provide live updates on results.

Text-Based Adventure Game

Dec 2024

- Developed an interactive, non-linear adventure game using object-oriented principles, designing complex in-game logic with multiple challenges and player choices for an engaging experience.

VICTA Medical Teaching App

Mar 2022

- Developed an Android app for medical students that improved diagnosis practice efficiency by 40%, enabling easier simulation of real-case scenarios and resulting in a 20% increase in diagnostic success rates.
- Integrated an SQL database, Flask backend, and REST APIs, enabling seamless data storage and retrieval.

Recommender System

Jan 2022

- Implemented a web-scraping-based recipe recommender using Python libraries, processing 100+ recipe entries and providing tailored suggestions based on similar recipes.

Web-Based Task Manager

Dec 2022

- Designed and developed a high-fidelity web app prototype using JavaScript, HTML, and CSS, improving task-tracking efficiency. Enhanced UI/UX by 20% through responsive design and interactive wireframing.

EDUCATION

University of Leicester, Leicester, United Kingdom

Jul 2024

Bachelor of Science in Computer Science with 1st Class Honors

- **Best Final Year Project Award** for outstanding work in mobile and IoT development.

EXTRA CURRICULARS

Drawing & Painting: Exhibited my artworks at the Open Street Art Market 2023 in Leicester.

Dancing: Former Team Captain of the Asian Dance Society, actively participated in multiple interuniversity dance competitions.

Running: Participated in several long-distance marathons.