# Anubhav Apurva


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**PROFESSIONAL SUMMARY**

Software Developer with 5 years of experience in building large-scale software products, following agile methodologies. Enterprising with track record of producing innovative solutions, creating proof-of-concepts (PoCs), and papers. Adept at designing scalable architectures and optimizing performance.

**EDUCATION**

**University of Southampton, Southampton, U.K.** 2022-2023
Master of Science (MSc) - *Computer Science*

**International Institute of Information Technology (IIIT), Bangalore, India** 2021-2022
Post Graduate Diploma - *Cloud Computing*

**Manipal Institute of Technology, Manipal, India** 2014-2018
Bachelor of Technology (B. Tech) - *Computer and Communication Engineering*

**EXPERIENCE**

**Amadeus IT Group** (London, UK) - **Software Developer** Oct 2023 - current

- Developing a rule engine for the airline industry (customers include Etihad, Air Canada) based on micro-service-based streaming architecture. This engine processes real-time events in the airline domain, such as tickets, PNRs, and inventories, and executes automated actions based on configurable business rules.
- Language/Technologies: Java, Spring, Kafka, MongoDB, Drools, Docker, OpenShift (Kubernetes), Jaeger, Splunk.

**Hewlett Packard Enterprise** (HPC & AI lab, Bangalore) - **System Software Engineer II** 2018-2022

- ***NonStop Servers and SQL/MX Database*** (3 years)
  - Implemented features - DUAL table, NEXT_DAY(), TO_NUMBER(), INSTR()
  - Made enhancements in cardinality estimates and join enumeration algorithms.
  - Developed infrastructure for storing LOB datatypes.
  - Resolved major and critical escalations.
  - Language: C++
- ***Database as a Service*** (1 year)
  - Led the design and implementation of control plane to provision and manage SQL/MX databases through REST APIs.
  - Features include deployment and deletion of database, adding and removing users, configuring storage, changing user's privilege levels, and starting/suspending of data sources.
  - Languages: Python, Django, shell script.

**PUBLICATIONS**

- **Aiding the visually impaired: Developing an efficient braille printer**
  IEEE proceedings of Advances in Computing, Communications and Informatics 2017.
  Authors: Anubhav Apurva, Anupam Misra, Palash Thakur.
- **Method for Classifying Log Files** (Patent Application)
  US20200349112A1, IN201941017235
  Authors: Anubhav Apurva, Nallasamy Jayasankar
- **Relevance Feedback Based Citation Recommendation for Scholarly Publications**
  IEEE proceedings of International Conference on Electronics, Computing and Communication Technologies 2020.
  Authors: Anubhav Apurva, Aditya S. Verma, Dr. Tribikram Pradhan.

**AWARDS & Achievements**

- Finalist - Amadeus Innovation Programme (LIFT4)
  Selected among 7 out of 200+ applications for a pre-incubation project optimizing passenger flow at airport checkpoints. If successful, the project will advance to full incubation.
- HPE Early Career Technologist
  Developed an NLP-based automated triaging system using word representations, reducing manual incident triage time from several days to a few minutes. Presented at HPE TechCon 2020, Orlando, FL.
- Winner - HPE Intern Project Fair

**MSc Dissertation**

**Machine Learning-Driven Index Management for Improved DBMS Performance**

- Developed a system incorporating Machine Learning for automated index optimization, reducing query execution time and enhancing database throughput.
- Experimental results demonstrated up to 12.74% throughput improvement, validating its effectiveness for OLAP and HTAP workloads using TPC-H benchmarks, proving its adaptability to real-world database environments.
- Designed a lightweight and efficient algorithm that generates minimal yet high-impact indexes, balancing performance gains with storage overhead.
- Findings emphasize how even simple ML models can lead to significant database performance improvements with minimal administrative intervention.

**Volunteering**

**Sustainability Representative** Nov 2022 - Sep 2023
Southampton University Student Union, Southampton, UK

**General Secretary** Jan 2015 - Dec 2017
Robotics Society, Manipal University, India

**Lead of School Contact Programme** Jan 2015 - Jan 2017
Akshay Urja (Renewable Energy Sources) Society, Manipal University, India