Mohammed Abdul Razak Wahab

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Education

- **RV College of Engineering** — Bengaluru, India
  Bachelor of Technology in Information Science; GPA: 8.67 — *2019 – 2023*
  - **Courses**: Data-Structures and Algorithms, Operating Systems, Database Management System, Computer Networks, Object Oriented Programming.

Work Experience

- **JPMorgan Chase & Co** — Bengaluru, India
  Software Development Engineer — *August 2023 - Present*
  - Built robust rest APIs and responsive web-app using Spring Boot and Angular.
  - Developed an automated onboarding tool that effectively reduced manual effort by **95%**, streamlining the information gathering processes, applying TDD principles and enhancing CRM for internal ops.
  - Improved page turnaround time by around **40%** using caching, bulk insert and background jobs.
  - Engaged in the migration from strategic to non-strategic data centers, ensuring the smooth transition of critical applications and infrastructure.

- **Indian Institute of Science** — Bengaluru, India
  Project Intern — *April 2023 - July 2023*
  - Contributed to **Skyrax**, a project aimed at bridging the gap between drone service providers offering fertilizer spraying services and farmers, catering to the growing demands of the B2C market.
  - Crafted a cross-platform UI/UX using React Native for seamless order placement and management, ensuring compatibility with both iOS and Android devices.
  - Implemented a real-time notification system using Firebase Cloud Messaging (FCM) to promptly inform users about new order placements.
  - Configured and deployed distributed systems and microservices using Docker, leveraging Kafka for robust event streaming.

- **JPMorgan Chase & Co** — Bengaluru, India
  Software Intern — *September 2022 - October 2022*
  - Engineered an automated outlier detection tool for financial data, driving impactful batch campaigns within the Asset and Wealth Management team.
  - Devised sophisticated algorithms, leveraging Isolation Forest for superior anomaly detection, and applied PCA to reduce feature dimensionality in multi-dimensional data with 20+ dimensions, mapping them to a higher-order kernel.
  - Utilized 3D modeling techniques to visually represent and isolate outliers, contributing to a comprehensive understanding of their impact within the dataset.

- **Department of Information Science, RVCE** — Bengaluru, India
  Research Assistant — *May 2022 - July 2022*
  - Collaborated on the developmennt of a novel methodology aimed at identifying drug interactions to prevent the intake of harmful drug combinations.
  - Drug Fingerprinting and Support Vector Machines were implemented to get accuracies as high as **92%**.
  - Completed and submitted a research paper titled "Prediction of Drug-Drug Interactions Using Support Vector Machine" to the SPRINGER conference. **[Paper Link]**

Personal Projects

- **FenceAndConquer(Desktop Game)**:
  "Fence and Conquer" is a two-player game where AI bots strategically compete to capture cells on a grid. The project's approach involves employing mathematical strategies to determine optimal moves, with a focus on conquering rectangles for a competitive edge. The game introduces time constraints, challenging players to make efficient decisions within a 10-second window. Algorithmic thinking forms the core of the project, ensuring a strategic gaming experience.
  Features: Rectangle Conquest, Grid-Based Gameplay, Algorithm-Driven Decision Making
  Tools: Python, PyGame, NumPy, Algorithmic Strategies **[Project Link]**
- **ShopHub(Web App)**:
  ShopHub is a web-based e-commerce site for an online shopping experience.
  Features: Login/Logout (session management) for both buyers and sellers, detailed product view, add to cart functionality, checkout feature, seller dashboard with statistics, backend database management using MySQL.
  Tools: HTML, CSS, Django, Plotly, MySQL **[Project Link]**
- **WaySense(ML Model)**:
  Created a robust model employing KNN regression to estimate travel time between source-destination pairs. Notably, the model functions offline and is optimized for Bengaluru, using the BMTC dataset.
  Features: Accurate travel time estimation, Offline functionality, Trained on Bangalore routes with BMTC dataset
  Tools: Python, Scikit framework **[Project Link]**

Extra Activities

- Contributed to the winning team in a hackathon hosted by JPMC, involving 100+ teams, for developing solutions for an NGO.
- Won 1^{st} prize in a Data Science challenge out of 20+ teams conducted by IISC, Cisco CSR and BMTC to efficiently calculate time taken to travel by Bangalore's BMTC busses
- Won 2^{st} prize in a hackathon organized by Toyota to vizualize their sales data
- Worked with LAHI(Lend a Hand India), a non-governmental organization, and participated in the development of its web application intended towards education of children.
- Worked as a Part-time Freelance, personalized home tutor for classes 6th to 12th, and taught subjects including but not limited to Computer Science, Mathematics and English.

Technical Skills

- Languages: Python, Javascript, C/C++, SQL, Java, Dart
- Tools & Frameworks: Angular, React, Django, NodeJs, SpringBoot, Flask, Docker, Tensorflow, mongoDB, ReactNative
- Full Stack development across several frameworks, Machine Learning and Artificial Intelligence, Data Science and visualizing patterns, Cryptography and Security, Data Structures, Competitive coding and optimizing code.