Adarsh Raj

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# **EXPERIENCE**

MICROSOFT | SOFTWARE DEVELOPER

Aug 2023 - Present | Hyderabad, India

- → Created a **JavaScript** module for precise user telemetry, optimizing Copilot.
- → Expertise in API Gateways, Azure **Cloud** and **DevOps**, CosmosDB, and SQL.
- → Developed a **C# ASP.NetCore** Service for insights into MSCommerce customers.
- → Elevated UX of MSCommerce Copilot by leveraging React and Fluent UI.

#### **ZENSKAR** | FOUNDING ENGINEER INTERN

Dec 2022 - May 2023 | Bangalore, India

- → Worked on the backend of the billing system utilizing FastAPI and DynamoDB.
- → Developed complex pricing model nodes using AWS Lambda and Step functions.
- → Utilized **CWL** to make pricing nodes independent, but compatible with each other.
- → Created a Contract Template Builder using **ReactFlow** for customers.

#### MICROSOFT | SOFTWARE DEVELOPMENT INTERN

May 2022 - July 2022 | Hyderabad, India

- → Implemented a Monitoring System on Azure DevOps Data for Cloud And AI Team
- → Experimented on multiple data models to parse Azure Cloudmine Cluster data
- → Added PowerBI and Kusto API calls for real-time data monitoring

#### PHILIPS INNOVATION CAMPUS | ML RESEARCH INTERN

May 2021 - July 2021 | Bangalore, India

- → Reviewed literature on different market solutions for federated data lake indexing
- → Implemented HAPI JPA Generic Client REST API using Jetty and docker
- → Proposed an indexing schema in **PostgreSQL** for FHIR, DICOM, and Blob data

# **PROJECTS**

# **REAL TIME CRYPTO TRADING BOT** PYTHON | SELF PROJECT

IIT Bombay | Autumn 2022

- → Developed an automated trading bot using WebSockets, TA-Lib, and Binance API
- → Executed Ethereum orders and tweaked the strategy to find a combination aligning with personal goals and timeframe

# **ANTITIC TAC TOE** Python | Course Project

Prof. Shivaram, IIT Bombay | Autumn 2021

- → Encoded the game of anti tic tac toe as a Markov Decision Problem
- → Solved the MDP using Value Iteration, Howard's Policy Iteration, and Linear Programming and obtained optimal strategies for both players

# ONLINE COMPETITION AND DEVELOPMENT ENVIRONMENT | COURSE PROJECT

Prof. Amitabha, IIT Bombay | Spring 2021

- → Developed an Angular based web IDE supporting multiple languages
- → Utilized PHP along with shell scripting for compilation and execution of user code
- → Provided features for real-time grading utilizing MySQL and PhpMyAdmin

# BLOCKCHAIN SIMULATOR PYTHON | COURSE PROJECT

Prof. Ribeiro, IIT Bombay | Autumn 2021

- → Implemented discrete-event simulator of a P2P cryptocurrency network with transactions and block forwarding
- → Simulated selfish and stubborn mining attacks along with results verification

# **EDUCATION**

### **IIT BOMBAY**

BACHELOR'S IN COMPUTER SCIENCE Aug 2019 - May 2023 | India CGPA: 9.27 / 10.0 Department Rank: 45

#### **DELHI PUBLIC SCHOOL**

INTERMEDIATE, STREAM: SCIENCE May 2019 | CBSE Percentage: 95.4 / 100

#### **DAV HEHAL**

MATRICULATION May 2017 | CBSE CGPA: 10.0 / 10.0

# SKILLS

# PROGRAMMING

Experienced: C++ • Python • SQL Familiar. IAT<sub>F</sub>X• Java • Bash • JavaScript

# **TOOLS/PLATFORMS**

Angular • MATLAB • Docker React • AWS • Azure • CWL

# **ACHIEVEMENTS**

### **JEE 2019**

Advanced All India Rank 344 Mains All India Rank 394

# **KVPY FELLOWSHIP 2018**

All India Rank 73

#### **REGIONAL OLYMPIADS**

Mathematics | 2018 State Rank 1 Science | 2018 State Rank 1

# **KEY POSITIONS**

# **TEACHING ASSISTANT**

CSE DEPARTMENT, IIT BOMBAY Sept 2021 - Nov 2022

#### **CORE MEMBER**

Developers' Community, IITB April 2020 - May 2021