ARYA VEER SINGH CHAUHAN

| +91 8619151680 | @ aryaveersingh2003@gmail.com
LinkedIn GitHub Portfolio

Education

Birla Institute of Technology and Science, Pilani — Pilani, India
B.E. Computer Science Engineering; ***GPA: 8.64/10*** — *2020 – 2024*

Skills

Languages: C/C++, Java, Python, JavaScript, SQL, NASM

Technologies: Django, Django Rest framework, React.js, Next.js, MySQL, Postgresql, Spring Boot, Postman, Compiler construction, Server Configuration, Socket Programming, Git, SVN, Docker, AWS, Kubernetes, GCP, Kafka, RabbitMQ

Methodologies: Agile, Scrum, OOP, Functional Programming, Microservices, API Testing automation, Design Patterns

Experience

BITS Pilani Library — Pilani, India
Software Developer — *August 2023– May 2024, Part-time*

- Digitalised the heritage gallery of BITS having 1000+ media files developing heritage website using **React.js** and **MongoDB**.
- Designed and Programmed the official library website of BITS utilising **Next.js** for server-side rendering and **Django** for backend.
- Conceptualized a framework using **multithreading** to upload data **asynchronously**. Reduced data upload request time by 85%

Standard Chartered GBS — Bengaluru, India
SDE Intern — *May, 2023 – July, 2023*

- Engineered a proof-of-concept software with **React.js** and **Spring Boot** for reducing manual work by 4 hours in account opening.
- Enhanced the core functionality of utility library to compare two XML files using **Java** and tested the same using **JUnit**.
- Pipelined API development, documentation and testing through **postman** automated with **newman** and python subprocesses.

Projects

Studydeck — July 2023 - October 2024

- Created the backend using **Django** for a platform-independent software used by more than 80% BITS students for the academics.
- Devised a **BFS** and **multithreading** based algorithm to parse google drive and store 800 GB of study resources in **S3 bucket**.
- Consolidated a **CDN** on campus LAN to decrease approx. 70% cost and also provided a resource-sharing feature to students.
- Automated timetable download and parsing to prepopulate database, and allowing students to customize their own timetables.
- Empowered the feature with autocomplete having a **backtracking-based algorithm** in **C++** to increase code efficiency 20 times.

ERPLAG Compiler — Feb 2023 - May 2023

- Architected a compiler in **C** for given specifications implementing lexical and syntax analyzer to check for errors during compile time. Generated a parse tree using data structures like **Linked List**, **Stack** and **Hash map**. Integrated panic-mode error recovery.
- Implemented the backend of compiler with Abstract Syntax Tree reducing memory efficiency by 70% for semantic analysis.
- Established a three-address code technique to convert the given code into **NASM** assembly code for execution and runtime checks.

Project Onetap — September 2021 - March 2022

- Formulated a system providing services to 8000+ college students developing multiple softwares and integrating them together.
- Provided **REST APIs** to mobile applications and a desktop application for a food ordering and delivering service using **Python**.
- Implemented an encrypted QR-based wallet using **Symmetric encryption**, and facilitated secure transactions over Rs. 10 cr. p.a.
- Built a web application using **React.js** and **Django** for booking, functioning and monitoring of cab service in campus deployed here

Bachelor's Thesis

Title: Design and Implementation of Software Systems to Support Big Data and AI Techniques in Disease Diagnosis
Supervisor: Dr. Tanmay Mahapatra

- Deciphered the underlying software architecture of 10 solutions across world to understand the features and limitations in them.
- Conceptualized an Indian context based architecture to solve the EHR collection problem to provide datasets for medical research.
- Deployed the pilot implementation as a web-application developed using **Django**,**React.js** and **postgresql** having SUS score of 72.9

Coursework

C Programming, **Object-oriented programming(Class topper)**, Discrete Structures, Database Systems, Data Structures and Algorithms, Operating Systems, Computer Architecture, Principles of programming languages, Computer Networks, Compiler Construction, Artificial Intelligence, Design and Analysis of Algorithms