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: HTML/CSS, 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, MongoDB, jwt, OAuth 2.0

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**.
- Architected a **authencition** system based on **jwt** with an encrypted QR-based wallet facilitating transactions over Rs. 10 cr. p.a.

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