ARYA VEER SINGH CHAUHAN

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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: Python, Java, C/C++, HTML/CSS, JavaScript, SQL, NASM

Technologies: Django, Django Rest framework, React.js, Redux, Next.js, Tailwind, Bootstrap, MySQL, Postgresql, Sanic, Tortoise, Spring Boot, Postman, Compiler construction, Server Configuration, Socket Programming, Git, Asyncio, SVN, Docker, AWS, Kubernetes, GCP, SQS/Kafka, RabbitMQ, MongoDB, jwt, OAuth 2.0,

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

Experience

Tata 1MG — Gurugram, India
Software Developer Engineer- I — *July 2024– Present, Full-time*

- Removed third-party dependency by developing a rule engine to support business rules which would save Rs. 10,00,000 per year.
- Integrated doctor E-consult flow with B2B segment, auto-generating MERs, saving 2 hours of manual effort.
- Optimised a graph-based algorithm, reducing API latency by 50%

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 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.
- 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.
- 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 with 30 keywords, 120 grammar rules in **C** implementing lexer and syntax analyzer to check for errors during compile time. Generated a parse tree using data structures like **Linked List**, **Stack** and **Hash map**.
- 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 an expense system, allowing 8000+ users to order food, book cabs and shows, order merchandise on a single tap.
- Handled over 1000 requests per second by following best practices for backend and databases like caching and indexing.
- Architected a **authentication** 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

- Conceptualized an Indian context based architecture to solve the EHR collection problem to provide datasets for medical research.
- Deployed a web-application for data collection developed using **Django**,**React.js** and **postgresql** having SUS score of 72.9
- Pushed collected data after achieving 90% psuedo-anonymization using **Java** based ETL tool to populate dataset on **cloud**.
- Created the low level design of each component following **SOLID** principles and design patterns to ensure scalability of the system.