Himanshu Shishir Shah

(Current CS graduate student | Software Engineer with 2 years of experience)

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SKILLS

- Python | C++ | Java | JavaScript | HTML | CSS | Django | Falcon | React | MySQL | MongoDB | Redis | Snowflake
- Cucumber | Pytest | JMeter | Postman | SonarQube | Unit Testing | Load testing | TDD | BDD
- Git | CI/CD | AWS (S3, EC2, RDS) | CMake | Docker | Kubernetes | Jenkins | Sentry | Graylog | RabbitMQ | Celery
- Pandas | NumPy | Linux | Jira | Distributed Systems | Microservices | OOP | REST APIs | Back-end | Full-stack | Agile

EXPERIENCE

Visible Alpha, Mumbai, India — Mar 2022 – Jun 2022

Software Engineer 2, Data Feed and APIs | read more

- Engineered the framework for adding Snowflake as a data delivery channel using **Falcon**, **Python**, **Snowflake**, **MySQL**, and **AWS S3**, increasing the generated revenue by 45% and reducing the Time To Value
- Built APIs to reduce the average tech-support turnaround time by 80% from 10 to 2 minutes
- Revamped the file dispatcher microservice to reduce the number of open SSH connections by 5X using **Paramiko**
- Implemented a dashboard to report daily file generation and dispatch metrics to aid Support Team in monitoring failures

Visible Alpha, Mumbai, India — Jun 2020 – Feb 2022

Software Engineer 1, Data Feed and APIs | read more

- Overcame architectural challenges associated with a monolithic design by implementing a microservice-based enterprise fintech ETL application. The solution delivers high-volume, real-time data to clients with low latency, using the latest technologies such as **Django**, **MySQL**, **MongoDB**, and **Redis**, driving $2 million in revenue
- Optimized file dispatch latency by 90% using **RabbitMQ** & **Celery** for asynchronous task execution (60 to 10 seconds)
- Designed **REST APIs** and added APIs and **AWS S3** as data delivery channels to ease data consumption for clients
- Solved complex performance problems by resolving production issues, gaining exposure to dealing with large-scale software design issues, and avoiding performance bottlenecks

IIT Bombay, Mumbai, India — Oct 2019 – Jun 2020

Research Intern, Front-End for Synergistic Program Analyzer (SPAN) | read more

- Devised a high-level language (*specDFA*) to allow non-programmer users to specify data flow analyses intuitively
- Implemented a transpiler using **ANTLR** and **Java** to convert *specDFA* to Python and integrated it within SPAN

Mastek, Navi Mumbai, India — Jun 2019 – Jul 2019

Project Trainee | read more

- Developed an internal help-desk mobile app using **Angular 8, HTML,** and **CSS,** allowing employees to log trouble tickets more conveniently than its desktop counterpart. Used Apache Cordova to convert it to a mobile app

EDUCATION

University of California Irvine, Irvine, CA — Sept 2022 – Dec 2023

Master of Computer Science | GPA: 4.0/4.0

Coursework: Algorithms with Applications, Machine Learning and Data Mining, Compilers

K J Somaiya Institute of Technology, University of Mumbai, Mumbai, India — Aug 2016 – Oct 2020

Bachelor of Engineering in Computer Engineering | GPA: 8.96/10.0 (3.71/4.0)

Coursework: Advanced Algorithms, Databases, Web Development, Cloud Computing, Big Data Analytics

PROJECTS

TableGen Formatter – *C++, Compilers | link* — Jan 2023 – Present

- Extending *clang-format* to support formatting of TableGen files with several configurable formatting style options

SMPL Compiler – *Python, Compilers | read more | link* — Jan 2023 – Mar 2023

- Constructed a compiler for *SMPL* programming language which includes arrays and user-defined functions
- Added optimizations such as Common subexpression and Dead Code Elimination, and implemented a register allocator

DNS Server – *C++, Computer Networks | read more | link* — Feb 2023 – Mar 2023

- Implemented a DNS server that recursively resolves a domain name and supports multiple record types
- Researched the original DNS specification to understand the message formats and learned about *dig* and *nc* commands