

Himanshu Shishir Shah

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EXPERIENCE

Viant Technology

Jun 2023 – Present

Full Stack Intern, Platform

Irvine, CA

- Developed a video-to-audio conversion microservice to enhance ad campaign performance using creatives in not only video but also audio ad placements, achieving an estimated **15% lift in revenue**. Used AWS Lambda, MediaConvert, SNS, and DynamoDB.
- Teamed up with another intern to automate the process of adding new third-party user segments using Angular, Golang, AWS APIGateway, and S3, **saving 8+ engineer hours per use**.
- Collaborated with the ML team to improve the performance of existing Python scripts by **30x** on average using Codon, **reducing compute costs by 15x**.
- Carried out a POC and evaluated Go-migrate as a schema migration tool to improve efficiency and reduce deployment time.

Visible Alpha

Mar 2022 – Jun 2022

Software Engineer 2, Data feed and APIs

Mumbai, India

- Added Snowflake as a data delivery channel using Falcon and MySQL, **increasing revenue by 45%** and **reducing the customer's Time to Value**.
- Revamped the file dispatcher service to **reduce** the number of **open SSH connections** by **5x**, increasing product scalability.
- Built APIs to reduce the average Tech-Support turnaround time by 80% from 10 to 2 minutes.
- Worked with the Product team to create a daily reporting tool, enhancing the customer experience by monitoring system failures and identifying areas of improvement.
- Performed Snowflake database replications over different regions and clouds to accommodate customer's preferences.
- Collaborated with different teams to improve code maintainability by documenting projects using the Sphinx documentation tool.

Visible Alpha

Jun 2020 – Feb 2022

Software Engineer 1, Data feed and APIs

Mumbai, India

- Migrated the existing monolithic ETL application to microservices, delivering high-volume, real-time data with low latency to clients, using Django, MongoDB, and Redis, driving **\$2 million in revenue**.
- **Reduced** the ETL app file dispatch **latency** by **~80%** using RabbitMQ and Celery for async task execution (**60 to 10 seconds**).
- Added REST APIs and AWS S3 as data delivery channels to ease data consumption for customers.
- Saved 25% of the team's time spent on debugging and bug fixes by implementing a global logger and leveraging features of Sentry.
- Triaged and resolved production issues, dealing with large-scale software design challenges, and avoiding performance bottlenecks.
- **Increased** the **product's reliability** by writing unit tests using the Pytest framework. **Improved code coverage** from **11** to **77%**.
- Carried out API's Load and Performance testing using Apache JMeter to estimate API scalability and identify system lag.
- Wrote automation tests using the Cucumber framework and Behavioral Driven Development to improve system robustness.

IIT Bombay

Oct 2019 – Jun 2020

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

Mumbai, India

- Devised "specDFA", a high-level language to allow non-programmer users to specify Data Flow Analyses intuitively. Researched existing literature to learn about Data Flow Analyses such as Liveness Analysis, Available Expression Analysis, etc. to achieve this.
- Implemented a transpiler using ANTLR and Java to convert specDFA to Python and integrated it within SPAN.

Mastek

Jun 2019 – Jul 2019

Project Trainee

Navi Mumbai, India

- Developed an internal help-desk mobile app using Angular 8, MySQL, HTML, and CSS allowing employees to log trouble tickets more conveniently than its desktop counterpart. Used Apache Cordova to convert it into a mobile app.
- Added a search functionality within the app to allow employees to easily find the tickets they raised.

SKILLS & INTERESTS

- **Languages & Frameworks:** Python, Golang, C++, HTML, CSS, Django, Falcon, Angular
- **Databases, Caching & Message Queues:** MySQL, MongoDB, Snowflake, Redis, RabbitMQ
- **Testing:** Pytest, Sentry, Postman, SonarQube, Apache JMeter, Cucumber, Unit Testing, Load Testing, TDD, BDD
- **Cloud:** AWS (Lambda, DynamoDB, SNS, S3, EC2, EventBridge, MediaConvert, APIGateway, CloudWatch)
- **DevOps & Misc:** Docker, Jenkins, Git, CI/CD, REST APIs, OOP, Linux, Distributed Systems, Microservices, Back-end
- **Interests:** Badminton, Table Tennis, [Vinyl Record Collecting](#)

EDUCATION

University of California Irvine

Master of Computer Science | Course Assistant for Computer Networks (EECS 148) | GPA 4.0/4.0

Coursework: Operating Systems, Parallel and Distributed Computing, Databases, Algorithms, Compilers, Machine Learning

Sept 2022 – Dec 2023

Irvine, CA

University of Mumbai

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

Coursework: Web Development, Cloud Computing, Big Data Analytics, Computer Networks, Introduction to Artificial Intelligence

Aug 2016 – Oct 2020

Mumbai, India

PROJECTS

Crontab Manager – Python, Angular

Jul 2023 – Present

- Creating a UI to manage cronjobs running on Docker containers with ease. Supports import/export and CRUD operations.

TableGen Formatter – C++, Compilers

Jan 2023 – Jun 2023

- Extended Clang-Format to support formatting of TableGen files with several configurable formatting style options.
- Wrote test cases for the changes using llvm-lit and FileCheck. Verified build stability by running all the LLVM regression tests using the “check-llvm” target.

Tweet Sentiment Analysis – Python, Deep Learning, Machine Learning

Mar 2023 – Apr 2023

- Classified sentiments of 1.6 million tweets as “positive” or “negative” with an 82.24% accuracy. Used PyTorch to build models.
- Compared performance of 1D CNN and RNN Deep Learning models with Logistic Regression and Random Forest Classifier.

DNS Client – C++, Computer Networks

Feb 2023 – Mar 2023

- Implemented a DNS client service that recursively resolves a domain name. Supports multiple DNS record types (A, NS, etc.).

SMPL Compiler – Python, Compilers

Jan 2023 – Mar 2023

- Built an optimizing compiler for the SMPL language that includes arrays and user-defined functions.
- Added optimizations such as Copy Propagation, Common Subexpression Elimination, and Dead Code Elimination.
- Implemented a global register allocator by tracking live ranges of individual values and generated an interference graph.
- Built a transpiler to convert optimized IR to Dot language and used GraphViz to display the Basic Blocks with SSA-based IR.

LEADERSHIP

- Presented a Quick Technical Talk on “TableGen Formatter” at the 2023 LLVM Developers’ Meeting, Santa Clara.
- Initiated monthly Brown Bag sessions at Viant to foster knowledge sharing. Conducted the first session on Schema Migrations.