

# Soham Shimpi

☎ 480-290-6911 | ✉ sohamshimpi@gmail.com | 🔗 [linkedin.com/in/soham-shimpi1712/](https://www.linkedin.com/in/soham-shimpi1712/) | 🌐 <https://soham1712.github.io/>

## EDUCATION

---

### M.S. Computer Science

Arizona State University, Tempe, AZ

August 2023 – May 2025

CGPA 3.94

### B.E. Information Technology

Vivekanand Education Society's Institute of Technology, Mumbai, India

August 2019 – May 2023

CGPA 3.8

**Relevant Coursework:** Data Visualization, Object Oriented Programming, Foundation of Algorithms, Database Management System, Data Structure and Analysis, Software Verification, Validation and Testing, Data Processing at Scale, Cloud Computing, DevOps, Fundamentals of Statistical Learning and Pattern Recognition, Artificial Intelligence, Data Science, Data Mining, Applied Cryptography, Data Intensive Systems for Machine Learning, Knowledge Representation and Reasoning, Big Data Analytics.

## TECHNICAL SKILLS

---

**Programming Languages:** Java, JavaScript, Typescript, Python, C, C++, Matlab, Mathematica, Angular

**Front-End:** HTML, CSS, React.JS, Bootstrap, D3.js

**Backend and Databases:** Node.JS, Firebase Firestore, SQL, MongoDB, Postgresql, DynamoDB

**Tools:** Git, Tableau, AWS, Azure, Jenkins, Docker, Selenium, Kafka, Linux(OS)

**Machine Learning and Data Science:** TensorFlow, PyTorch, Scikit-Learn, Deep Learning, NLP, Statistical Learning, Data Analysis, Data Mining, Data Management, Data Collection, Computer Vision, Data Pipelines, Larger Language Models

## EXPERIENCES

---

### Research and Teaching Aide

(Arizona State University)

March 2024 - Present

Tempe, Arizona

- Conducted literature reviews, data preparation, and analysis and managed diverse data sources, reducing **data retrieval time by 30%** and enhancing data analysis efficiency.
- Programmed in Mathematica and Matlab to develop and analyze economic models, enhancing the efficiency and accuracy of **statistical regressions**.
- Constructed and managed databases from provided data sources, optimizing data retrieval and preparation processes.

### Software Developer Intern

(CBM - Finance)

April 2023 - July 2023

Mumbai, India

- Spearheaded development of a Financial Dashboard leveraging Python and Streamlit, consolidating real-time data from the National Stock Exchange; which provided detailed financial analysis, driving a **15% reduction in investment risk**.
- Analyzed and visualized critical financial metrics, including the nearest strike price, annualized returns, and market insights, resulting in a **10% increase in data retrieval speed** and enabling quicker decision-making for investors

## PROJECTS

---

### Visual Analytics Dashboard – IEEE VAST Challenge 2019

(HTML, CSS, Javascript, D3.js, Numpy, Pandas)

August 2023 - November 2023

- Developed an interactive visual analytics dashboard using HTML, CSS, and JavaScript, with a focus on D3.js to aid emergency responders after a seismic event, which incorporated **choropleth maps, violin plots and stream graphs** to analyze citizen-reported data, guiding resource distribution decisions with **spatial and temporal** insights using **80,000+ reports**.

### Planetary Structure Detection from Satellite Images

(TensorFlow, Keras, OpenCV, Sci-kit Image, Sci-Py, Stream lit, Flask, MySQL)

August 2022 - April 2023

- Engineered and trained a deep learning model (**CNN**) using **11,000+ satellite images**; achieved **93% accuracy** in classifying planetary structures, enabling more accurate analysis for future space exploration missions.

### Cloud-Integrated Weather Monitoring System

(HTML, CSS, Bootstrap, JavaScript, ReactJS, NodeJS, Firebase)

September 2022 - November 2022

- Created a weather monitoring system with **Raspberry Pi 3B+**, utilizing **AWS DynamoDB** as the database, reducing **data access time by 25%**.

### Food Ordering System

(HTML, CSS, Bootstrap, JavaScript, ReactJS, NodeJS, Firebase)

August 2021 - December 2021

- Led a team to develop a comprehensive food ordering platform using ReactJS and NodeJS, streamlining the ordering process decreasing the ordering time by 30% and increasing efficiency by 40%. Implemented features including **real-time data storage** (Firebase Firestore), **secure payment gateway** (Razor Pay) and **secure user authentication** (Firebase Authentication).

## PUBLICATIONS

---

### Planetary Structure Detection and Segmentation using Deep Learning

- Krishna Kansara, Raghuttam Parvatikar, **Soham Shimpi**, Hanish Valecha and Kajal Jewani, "Planetary Structures Detection and Segmentation Using Deep Learning," in Proceedings of the IEEE International Conference for Emerging Technology (INCET), May, 2023.