

Mitesh Jalan

Stony Brook, New York

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SKILLS SUMMARY

Languages: Python, C, Java, **JavaScript (ES5/ES6)**, **JSON**, C++, HTML, CSS and Yaml
Framework: Flask, Django, TensorFlow, **Firestore**, MySQL, MongoDB
Tools : AWS, **Docker**, **Git**, Linux, Postman, Hadoop, Spark, Tableau, **Nginx**, RabbitMQ, **Kubernetes**
Skills: **Agile**, **Back-end**, Unit-testing, **Micro-services**, **Machine Learning**, Deep learning, Front-end, SCRUM, CI/CD, DevOps

WORK EXPERIENCE

Teaching Assistant | Stony Brook University | (Jan 2023 - May 2023)

- **Collaborated** with professor Dr. Christopher Kane to guide class of 100 students for the course CSE 337/ISE 337 – Scripting Languages.
- The course focused on equipping students with a comprehensive understanding of Scripting languages in programming and its practical applications in the field of system administration, web development, etc.
- Hosted weekly doubt solving sessions with students.

Sony Research India | Data Science Intern | (May 2022 - Dec 2022)

- **Upgraded** the codebase to Python 3 to ensure compatibility with modern libraries, facilitating efficient development.
- **Built** a session-based recommendation system based on user data from Sony's OTT platform which **improved** the recall metric of the OTT platform by **12%** in the offline evaluation framework.
- **Designed** a framework supporting exploratory data analysis and visualization of data in order to perform feature engineering of the proposed model.

Unscript.A.I. | Data Associate Intern | (Mar 2022 – Apr 2022)

- **Developed** an automated model for noise suppression of audio input files, integrating AWS Transcribe using AWS infrastructure such as EC2 and AWS S3 buckets.
- **Enhanced** the performance of AWS Transcribe by implementing techniques such as smoothing and the Fast Fourier Transform (FFT) algorithm to reduce noise in the audio input data and achieved a significant 19% improvement in transcription accuracy and overall performance.

PROJECTS

HouseX Web Application | [GitHub](#) | (June 2023 - August 2023)

- **Developed** and **deployed** a sophisticated Flask-based web application for predicting property prices and listing houses for sale, utilizing regression models with Linear Regression as the best choice.
- **Designed** an intuitive user interface using HTML, CSS, and JQuery, ensuring precise estimation for potential home buyers and sellers.
- **Implemented** a robust authentication framework with JWT tokens, ensuring secure user access and safeguarding sensitive data.
- **Enhanced** user engagement and experience by adding advanced features such as ad posting for house sales, user following, chatroom, a handy option to read the most recent posts, user status, etc.

Audiocation Microservice | [Github](#) | (February 2023)

- **Implemented** and integrated secure user authentication using **JWT** tokens within the video to MP3 converter, safeguarding data privacy and ensuring only authorized users have access, resulting in zero unauthorized data breaches and platform security.
- **Developed** a robust system utilizing Kubernetes, RabbitMQ, and MongoDB, enabling efficiency and scalability.
- Orchestrated **distributed systems** to achieve optimal scalability and fault tolerance, guaranteeing smooth and reliable operation even under heavy loads.

Ai Traffic Police | [Github](#) | (May 2022)

- **Built** a real-time license plate detection and recognition model using TensorFlow, leveraging EasyOCR to extract license plate numbers from live video feeds, enhancing accuracy and efficiency in license plate identification.
- **Designed** and **trained** a highly accurate model by implementing deep learning models on a large dataset of car images, ensuring robust performance in real-time scenarios and automatization of traffic control systems.

EDUCATION

Stony Brook University, New York

Master of Science in Computer Science

Relevant courses: Probability and Statistics for Data Science, Theory of Database, Analysis of Algorithm, Computer Vision

Jan 2023 - Dec 2024

GPA: 3.56/ 4.0

Hindustan University, Chennai, India

Bachelor of Technology in Computer Science

Relevant courses: Database Management Systems, Object oriented Programming, Design and Analysis of Algorithm, Operating Systems, Computer Networks, Compiler Design

May 2018 - May 2022

GPA: 9.21/ 10.0

OTHER EXPERIENCES

- ORGANIZING MEMBER of Blue Screen Coders Club. (2018-2022)
- Served as VICE PRESIDENT of Undergraduate annual cultural festival community YARONA. (2019-2020)