

Harshith Sesham

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EDUCATION

Master of Science in Computer Science

Aug 2021 - Dec 2022

Rice University, Houston, TX.

3.5/4.0 GPA

Coursework: Web Development and Design, Statistics for Computing Data Science, Big Data for Data Science, Algorithms, Deep Learning for Vision and Language, R for Data Science, Graduate Object-Oriented Programming, and Data Visualization.

Bachelor of Technology in Computer Science

Jul 2017 - Jun 2021

Amrita Vishwa Vidyapeetham, Kerala, India.

3.3/4.0 GPA

Coursework: Data Structures and Algorithms, Object-Oriented Programming, Database Management System, Computer Networking, Operating Systems, Software Engineering, Natural Language Processing, Machine Learning.

TECHNICAL SKILLS

Programming Languages: Java, C++, JavaScript, Python, C, Bash, R, C#, Go, TypeScript.

Front-End: PHP, HTML, CSS, React JS, Bootstrap, JSP, jQuery.

Framework: Spring Boot, .NET, Hibernate, Vue.js, Node JS, REST, Angular, Django, Flask, Apache Spark, Hadoop, Express JS.

Tools and Databases: AWS, Google Cloud, Azure, Jira, Postman, Docker, Git, Excel, MySQL, PostgreSQL, MongoDB, SQLite3.

PROFESSIONAL EXPERIENCE

Spurcrock, Houston, TX: Software Development Engineer

Feb 2023 - Present

- Implemented an end-to-end application using Java and React JS, delivering tailored features score and engagement index, resulting in a 10 to 15% improvement in accuracy and efficiency.
- Bridged the gap between business and technology by developing and implementing technology solutions resulting in a 15% increase in client satisfaction ratings.

Tata Consultancy Services, Houston, TX: Software Development Intern

Jun 2022 - Aug 2022

- Engineered full-stack web application using Java to facilitate Business analysis through interactive data visualizations, providing insights and enabling a 10 percent improvement in data-driven decision-making for a healthcare company.
- Attained service tools for business alignments and data requests, resulting in a 60 percent reduction in requests.

Indian Space Research Organization, Shriharikota, India: Data Science Intern

Dec 2019 - Aug 2020

- Developed and implemented predictive models for weather forecasting achieving an accuracy of 85% in a collaborative project with a senior scientist at ISRO.
- Administered an LSTM base model, tested and validated for various atmospheric conditions before its induction into ISRO activities, for rainfall, and an accuracy of 88%.

RELEVANT PROJECTS

Social Media Application, Class Project

Aug 2022 - Dec 2022

- Optimized the Facebook-like web application built with React JS, Node JS, and MongoDB, reaching an average page load time of 2.5 seconds and a server response time of 200ms while successfully deploying it on Heroku.
- Improved website design and user experience by implementing CSS and Semantic UI, resulting in a 30% increase in page load speed and a 20% reduction in bounce rate.

A Multi-Modal Vision and Language Model to Detect Harmful social media Memes, Class Project

Jan 2022 - Mar 2022

- Earned a 15% increase in hate speech detection accuracy by proposing the use of CLIP, OpenAI's latest multi-model, and comparing its benchmark results to other state-of-the-art models presented by the Facebook AI community.
- Ran the model on 500 samples in the validation dataset and recorded an accuracy of 57.8%.

MSVD Video Captioning System Using TensorFlow, Class Project

Aug 2021 - Dec 2021

- Captured features from video frames using VGG16 pre-trained neural network and employed sequence-to-sequence architecture with RNN/LSTMs-based encoder/decoder and got an overall accuracy of over 75%.

WORK EXPERIENCE

Rice University, Houston, TX: Teaching Assistant

Aug 2022 - Dec 2022

- Worked as a Teaching Assistant for COMP 682 Graduate Design and Analysis of Algorithms.
- Facilitated office hours, graded assignments and exams, prepared class materials, led discussions, and addressed course content inquiries for 60 students as the Teaching Assistant.