NISHANTH RAVULA

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EDUCATION

University at Buffalo, The State University of New York

Master of Science in Computer Science and Engineering, GPA : 3.6/4.0 **Dec 2023(Expected)**

- Course work: Coursework: Applied Algorithms, Data models query language, Deep learning, Information Retrieval.

Sri Indu College of Engineering and Technology

Btech in Computer Science and Engineering, CGPA : 8.6/10.0 **September 2021**

- Course Work: DBMS, Design and Analysis of Algorithms, C/C++, Web Development,Machine learning, Computer Networks.

TECHNICAL SKILLS

- Programming Languages: JavaScript, Python, C/C++, C#, Java,
- Skills: Web Development, Data Structures and Algorithms, Machine Learning, LINUX, Computer Networks.
- Frameworks/Libraries: React.js, Redux, Django, Flask, Android, TensorFlow, Axios, RestApi's.
- Databases: Oracle DB, MySQL and MongoDB.
- Cloud: GCP, Azure.
- Tools: AdobeXD, Figma, Solr, GIT, Postman, Visual Studio, IntelliJ, Jupyter, Jenkins, Docker, Microsoft Office, Salesforce

EXPERIENCE

Assistant System Engineer, Tata Consultancy Services, Hyderabad, India **July 2021 - July 2022**

- Python - ML Algorithms - Azure.
- Teamed on a Deep learning project for autonomous vehicles. Collected and cleaned data, and preprocessed it for analysis. Selected and tuned machine learning algorithms, And trained machine learning models.
- Evaluated and optimized model performance and then deployed to Azure cloud and sent to train a model.
- Led a team of 25 and managed to give 30% manually annotated data to ML Algorithm to achieve clients standards. Developed quality control processes to ensure accurate and consistent annotation.
- Continuously optimizing the annotation workflow to achieve maximum efficiency and precision. Collaborating with fellow machine learning engineers and data scientists to ensure annotated data adheres to project specifications and standards.

Web Developer (Internship), Halfway, Hyderabad **December 2020 - June 2021**

- Reactjs - Node - GCP.
- Designed and implemented new user-facing features by developing UI in React.js, NextJs based website with API integration of Google APIs, OAuth and custom APIs while coordinating with a team of 2.
- Translated designs and wireframes into high quality code. Optimizing components for maximum performance across a vast array of web-capable devices and browsers. And devised a higher user friendly UI.

Frontend Developer (Internship), PrimeFort, Chennai, India **October 2019 - January 2020**

- Reactjs.
- Determined structure and design of web pages and ensuring user experience determines design choices.
- Created features to enhance user experience and build reusable code for future use.

PROJECTS

- **ChatBot** : Created application used to conduct an online chat conversation via text or text-to-speech. Deployed ReactJs for frontend and connected to backend deploying Flask API. Utilizing data gathered from Reddit and chitchat with the PushShift API, based on the Okapi BM25 model. By employing a logistic regression model, the chatbot retrieves the pertinent results from the relevant index. The appropriate result is selected among the relevant results retrieved based on cosine similarity. Added a faceted search capability to further limit the chatbot's ability to communicate to a specific Reddit topic.

- **APOTHEOSIS**: Developed a virtual assistant for professional office work. Executed using Python language, Machine Learning Algorithm for training, modeling, analyzing, Google recognition API for speech recognition, NLP, and JIRA API.

- **Vehicle detection and tracking using Machine learning algorithms:** Developed a vehicle detection and tracking system employing advanced algorithms such as Support Vector Machines (SVM) and Decision Trees. Leveraging the power of these algorithms, I implemented a robust framework that accurately detects and tracks objects, specifically focusing on vehicles. By harnessing the capabilities of machine learning, I optimized the system's performance, achieving high precision and recall rates. This project showcases my expertise in algorithm selection, feature engineering, and model evaluation, emphasizing my ability to deliver state-of-the-art solutions in the field of computer vision.

- **Video chat Application:** Developed a simple and efficient platform that enables users to engage in face-to-face conversations. Leveraging the power of technologies like PeerJS, WebRTC, and Node.js, I created a seamless user experience for real-time communication. This project involved implementing peer-to-peer connections, enabling high-quality video and audio streaming, and ensuring data security. By utilizing these cutting-edge technologies, I successfully built a robust video chat application that facilitates effortless and immersive virtual conversations.

ADDITIONAL EXPERIENCES AND AWARDS

- Recommended for Business Analyst and Software Development Trainee by AMCAT. License No. - 14249125-94, 14249125-166.
- Reached the finalist stage in the highly competitive NASA SPACE APP Challenge 2018.
- Secured a position on the finalists waitlist for the prestigious Smart India Hackathon (SIH) 2020.
- Certified in Database Management System by NPTEL(2019).