

# 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 : 3.5/4.0

**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.
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## 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
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## 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.
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## 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.

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#### 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).