

Viswanadh Rahul Challa

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EDUCATION

University Of California, Riverside | *Masters of Science in Computer Science* **Sept 2024 – Dec 2025 (Expected)**

- **Relevant Coursework:** Design & Analysis of Algorithms, Artificial Intelligence, Machine Learning, Cloud Computing
- **Top 3 @ UCRPC 2024**

SOA University, Bhubaneswar | *Bachelors of Technology in Computer Science and Engineering* **Nov 2020 – Sept 2024**

- **Relevant Courses:** Computer System Architecture, Data Structures, Design & Analysis of Algorithms, Object-oriented Programming, Computer Networking, Operating Systems, Database management systems, Cryptography & Network Security.
- **Merit Scholarship Awardee | Top 10 – Semi-finalist @ Xperiments 6.0 by UST.**

WORK EXPERIENCE

Software Engineering Fellow | Headstarter AI | *Remote, Long Island, NY* **July 2024 – Sep 2024**

- Developed **AI-driven** web applications in 5 weeks using **React.js**, **Next.js**, and **REST APIs** for enhanced UX and performance.
- Implemented scalable cloud solutions with **Next.js**, **AWS Lambda**, **DynamoDB** and **AI**, optimizing speed and reliability.
- Built features using **PostgreSQL** and **JavaScript** to work on a startup's backlog, meeting business requirements.

Data Science Intern | Coding Rajas Technologies | *Remote, India* **Aug 2023 - Sep 2023**

- Built real-time, **ML-based** fraud detection models with **TensorFlow**, **Pandas**, and **Scikit-learn**, improving transaction security.
- Applied statistical techniques using **Pandas**, **NumPy**, and **SQL**, identifying anomalies and improving flagging accuracy.
- Achieved **>95% detection accuracy** on **1M+ transactions** using **preprocessing**, **model optimization**, and **feature extraction**.

Artificial Intelligence Intern | Pantech ProEd Pvt Ltd | *Remote, India* **Jul 2023 - Aug 2023**

- Analysed a dataset of **10K+ images** using **OpenCV** and **Pandas**, uncovering insights that enhanced **AI model performance**.
- Improved training pipelines by implementing data augmentation and normalization techniques with TensorFlow.
- Automated data preprocessing workflows using **Python** and **Scikit-learn**, significantly accelerating model training.

PROJECTS

Traffic Management System | **Top 10 @ Xperiments 6.0 by UST** | **Team Lead**

- Developed a **cloud-based** traffic management prototype using simulated real-time data, **Google Cloud** and **Python**, optimizing traffic light timing and emergency lane creation.
- Implemented ML algorithms with **Scikit-learn** and **NumPy** to optimize traffic flow and automate law enforcement.
- Designed a user-friendly interface with **Figma**, **React.js** and integrated **data visualization** to provide actionable traffic insights.

Real-Time sign Language to Text Conversion | **SOA University – Pending Publication** | **Team Lead**

- Developed a sign language-to-text conversion system with **Mediapipe**, **OpenCV**, and **TensorFlow**, achieving **98.98%** accuracy.
- Implemented **hand-landmarking** with **Pose Estimation** and **image segmentation** using **Pytorch**, **scikit-learn** and **TensorFlow** to eliminate background reliance, reducing the error rate to **<5%** in noisy backgrounds.
- Optimized real-time gesture recognition using **Python**, **NumPy**, and **CNN-based models** for efficient text conversion.

Reddit Based Content Creating Bot | **Personal Project**

- Developed a Reddit bot using Reddit's **API** to fetch trending threads and top comments, converting them into TikTok-videos.
- Generated dynamic content with **PIL** and **MoviePy**, overlaying text on pre-determined footage for ready-to-upload videos.
- Automated video creation using **Python**, streamlining content production for social media platforms.

SKILLS

- **Programming Languages:** Python, C, C++, Java, JavaScript, SQL
- **Tools/Frameworks:** HTML/CSS, React.js, Next.js | Kubernetes, Docker, AWS, GCP, DynamoDB | MySQL, MongoDB, PostgreSQL, DBMS | TensorFlow, Scikit-Learn, Pandas, NumPy, OpenCV, Pytorch | Git/GitHub, REST APIs, Linux, Object Oriented Design, Django | Tableau, Power BI, Figma.

CERTIFICATIONS AND TRAINING

- **Data Visualization: Empowering Business with Effective Insights** - Tata Technologies, Forage
- **Google Cloud Facilitator** - Google Cloud Community, India
- **SQL & Databases** - HackerRank
- **Tableau – Simplilearn**
- **Data Science the MAANG way – upGrad**
- **Best Practices in Data Analytics** - KIMO.AI