PUNEETH SARMA KONDAMUDI

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EDUCATION

University of Maryland College Park, MD
M.Eng. in Software Engineering, GPA: **3.85/4.0** May 2025
Coursework: Analytics for Decision Support, Fundamentals of AI and Deep Learning, Introduction to Software Engineering, System and Software Requirements, Software Testing & Maintenence, Cloud Security

International Institute of Information Technology Bangalore Bangalore, India
Integrated M.Tech. in Computer Science, GPA: **3.25/4.0** July 2021
Coursework: Linear Algebra, Mathematics for Machine Learning, Machine Learning, Visual Recognition, Advanced Visual Recognition

SKILLS

Programming: Python, C++, SQL, Java
Machine Learning: Computer Vision, Natural Language Processing, Generative Modeling
Libraries & Frameworks : Pytorch, Tensorflow (Keras), Numpy, Pandas, Scikit-learn, Rasa, W&B
Database: MySQL, InfluxDB, Neo4j
Other Tools/Technologies: Git, GitHub, Bash, Linux, Docker, Kubernetes, Slurm, Jupyter

EXPERIENCE

Perception & Robotics Group - UMD College Park, Maryland
Research Assistant June 2024 – Present
- Simulated a **Sonar system** in **Trimesh** and generated datasets for approximately **20,000 objects** of Objaverse.
- Utilized **CUT GAN** to apply **style transfer** between real and simulated sonar images.
- Trained machine learning models, including **UNet** and **Depthformer**, to predict **elevation maps** of objects in the scene.

Infosys Bangalore, India
Specialist Programmer, Collaborative Publishing Platform team May 2023 – August 2023
- Developed an **MS Add-in** for **Outlook** using **EmbeddedJS**, enabling company-specific email templates for streamlined communication.
- Implemented video functionality in both the **MS Add-in** and the frontend website based on **Angular**, allowing users to upload, view, and manage videos, improving content accessibility and team collaboration.

Infosys Bangalore, India
Specialist Programmer, Knowledge Graph team July 2021 – Aug 2023
- Designed & developed a **link prediction service** using **Knowledge Graphs** to identify previously disconnected nodes of client data.
- Improved **NLU service** by integrating features for **complex query handling**, **system reliability**, and cutting issue resolution time by **25%**, boosting client satisfaction.
- Saved 20 hours of testing time per release cycle by implementing automated regression testing using Protractor, bolstering application robustness.
- Acted as a primary **POC** for troubleshooting issues faced by customers using **NLU & Link Prediction** services.

Siemens Technology Bangalore, India
Research Intern December 2020 – June 2021
- Led a key project to assess InfluxDB's efficiency in managing large-scale ROS data, resulting in a more efficient data processing pipeline that reduced retrieval times by 30%.
- Performed extensive testing on over 100GB of ROS data, delivering valuable insights that informed strategic decisions for current and future sensor data storage and retrieval processes.

PROJECTS

License Plate Recognition and Speed Estimation System | *YOLOv2, CRAFT, LSTM, Karman Filters*
- Developed a deep learning-based system for Bharat Electronics Limited, focusing on accurate license plate recognition and vehicle speed estimation from CCTV footage; employed a mix of pre-trained and custom models to achieve a 15% improvement in accuracy and processing speed.

Road Boundary Detection | *Keras, Kitti, Semantic Segmentation*
- Modified SEGNET model for road boundary detection, achieving 66% testing accuracy; this project addressed the challenges of limited data by effectively training on the Kitti dataset and validating on the Cityscapes dataset.

PUBLICATIONS

- Chinchu Thomas, K.A.V. Puneeth Sarma, Srujan Swaroop Gajula, Dinesh Babu Jayagopi, "Automatic prediction of presentation style and student engagement from videos," *Computers and Education: Artificial Intelligence*, vol. 3, 100079, 2022. **DOI:** *https://doi.org/10.1016/j.caeai.2022.100079*