# K A V PUNEETH SARMA

College Park, MD
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## EDUCATION

**University of Maryland** College Park, MD
Master of Engineering in Software Engineering, GPA: 3.8 **Expected** May 2025

**International Institute of Information Technology Bangalore** Bangalore, India
Integrated Master of Technology in Computer Science, GPA: 3.25 July 2021

## SKILLS

**Programming Languages**: C++, Java, Python
**Web Development**: HTML/CSS, Embedded Javascript(EJS), Typescript, Angular, Flask, Springboot
**Database**: MySQL, InfluxDB, Neo4j
**Machine Learning/Deep Learning**: Numpy, Pandas, Matplotlib, Scikit-Learn, Jupyter, Pytorch
**Tools/Technologies**: Linux, Git, GitHub, Docker, Docker Compose, Kubernetes

## EXPERIENCE

**Infosys** Bangalore, India
*Specialist Programmer - Expert Track* July 2021 – August 2023

- Played a vital role in maintaining and supporting the Rasa-based Natural Language Understanding (NLU) service. Successfully resolved critical production issues for Statefarm, leading to a 25% reduction in issue resolution time, highlighting dedication to client satisfaction and service reliability.
- Led the research on Graph Neural Networks, contributing to the development of a PyTorch-driven link prediction service.
- Elevated NLU service performance by implementing advanced features for processing complex sentences, leveraging Spacy and NLTK.
- Contributed to the development of automated regression testing using Protractor, ensuring the robustness of applications and saving 20 hours of regression testing time per release cycle.
- Addressed and resolved various bugs as part of Collaborative Publishing Platform (CPP) team using Angular and EJS.

**Siemens Technology** Bangalore, India
*Research Intern* December 2020 – June 2021

- Spearheaded a project focused on assessing the efficiency and efficacy of InfluxDB, for storing and retrieving ROS data.
- Implemented a streamlined pipeline to process sensor data and seamlessly push it into the database.
- Conducted comprehensive testing by ingesting 100GB of ROS data and orchestrating experiments to evaluate performance metrics.
- Leveraged project outcomes to inform strategic decisions regarding the optimal approach for future storage and retrieval of ROS data.

## PROJECTS

**IIITB Event Management System** January 2020 – May 2020

- Assisted in the development of "IIITB Events" website for managing all events at IIIT Bangalore.
- Implemented features enabling the addition and updating of events using a WYSIWYG editor, event gallery, and club-specific events using Angular and Node.js.
- Applied contemporary DevOps practices, utilizing GitHub, Jenkins, Docker, and Rundeck to automate the software development process.

**License plate recognition and speed estimation system** January 2020 – May 2020

- Contributed to a deep learning application for Bharat Electronics Limited (BEL).
- Explored and incorporated diverse deep learning models to establish a pipeline for identifying license plates, extracting characters and determining vehicle speed in CCTV videos.
- Employed pre-trained and customized models strategically to optimize the solution.

**Road Boundary Detection System** August 2019 – January 2020

- Implemented a road boundary detection model utilizing Semantic segmentation.
- Modified SEGNET, a multiclass segmentation model, to tackle the the binary classification challenge.
- Conducted training on Kitti dataset and tested on Cityscapes dataset to address the limitation of small data size and assess generalizability.
- Achieved a training accuracy of 77% and testing accuracy of 66%.

## PUBLICATIONS

**Automatic prediction of presentation style and student engagement from videos**
*Chinchu Thomas, K.A.V. Puneeth Sarma, Srujan Swaroop Gajula, Dinesh Babu Jayagopi*