# Prashanth Kurella

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## EDUCATION

**University of Minnesota- Twin Cities**

*Master of Science in Computer Science*, *Sep '19 - May '21*

Currently pursuing coursework on ***Machine Learning*** and ***Reinforcement Learning.***Completed coursework on ***Computer Vision***, ***Sensing and Estimation in Robotics***, and ***Fundamentals of Operating Systems.***

**NIIT University - Neemrana**

*Bachelor of Technology in Computer Science*, *Aug '15 - Jul '19*

Graduated with a specialization in Data Science and strong foundation in computer science fundamentals with coursework on ***Algorithms and Datastructures*** & ***Software Engineering***

## WORK EXPERIENCE

**Graduate Research Assistant**

*School of Nursing, UMN, Minneapolis*, *Mar '20 - Present*

- Created a sessionized patient medication history dataset using data from Optum Labs Data Warehouse
- Investigating medication usage patterns in cardiovascular patients using Electronic Health Records and Insurance claims data to identify patients at risk of forfeiting prescriptions using LSTMs trained on Kubernetes clusters.
- Reviewed submissions for the International Conference on Artificial Intelligence in Medicine 2020.
- Manuscript "Producing personalized statin treatment plans to optimize clinical outcomes using big data and machine learning" currently under review for publication in PLOS one

**Intern Data Scientist**

*Postman Inc., Bangalore, India* *Jan '19 - July '19*

- Responsible for generating, evaluating, and predicting key business metrics
- Created dashboards for monitoring microservice health by mining service logs for consumption by the upper management.
- Contributed to production ETL pipelines handling data from 7+ Million users
- Created a graph-based prototype for client organization structure prediction based on product usage patterns

## ACADEMIC PROJECTS

**Sixth Sense**

*Sensing and Estimation in Robotics @ UMN*

- Simulated an autonomous differential drive robot equipped with a range scanner capable of navigating and mapping unknown environments
- Kept track of robot state with EKF-SLAM and used D* search for trajectory planning to incorporate dynamic obstacle avoidance

**Deep Signal**

*Computer Vision @ UMN*

- Created a deterministic sequence model using multi layered GRUs in Tensorflow to generate realistic full body gestures with vivid motions by observing other actors in a triadic social interaction.
- Working on using bayesian networks ( VAEs ) to create a non deterministic sequence model that can generate diverse and realistic outputs.

**H.G. GOLEM**

*Artificial Intelligence I @ UMN*

- Reviewed literature on State of the art object detection models and implemented a transfer learned YoloV3 pre trained on PASCAL VOC dataset to locate and recognize 6 different hand gestures from live video feed.

**Semantic Segmentation of Hyperspectral Images**

*GIS Lab @ NU*

- Developed a semantic segmentation solution for Hyper Spectral Images of the Himalayas with 97% accuracy, outperforming humans
- Used Stacked Denoising Auto Encoders written in Tensorflow for semi-supervised learning, to overcome limited labeled training data availability

## SKILLS

- Python, R, C/C++, Java, MATLAB, SQL, LISP, Shell, nodeJS
- TensorFlow, Keras, PyTorch, Scikit-Learn, OpenCV, Numpy, Flask, Eigen C++
- Git, Docker, Kubernetes, AWS, LaTex, Anaconda, PyCharm