Sumedh Godbole

Tempe AZ

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Objective

Masters Student at Arizona State University with experience in Machine Learning, Robotics and Computer Vision; actively looking for job opportunities starting May 2021 to be able to refine my skillset, with a commitment to making significant contributions to the company.

Education

Arizona State University

Tempe, AZ, U.S.A

Master of Science in Computer Science (Thesis Option) {GPA : 3.78/4} — *August 2019 - May 2021*

- Specialization : Artificial Intelligence

Relevant Graduate Courses

- Applied Cryptography (C++), Fundamentals of Algorithms, Perception In Robotics, Topics in NLP, Data Visualization (JavaScript)

Sant Gadge Baba Amravati University

Amravati, Maharashtra, India

B.E. in Computer Science and Engineering {GPA : 9.11/10} — *Mar. 2013 - Sep. 2017*

- Ranked *7th* on the university merit list for Computer Science (2017)

Work Experience

ASU Active Perception Group

ASU

Graduate Services Assistant — *May 2020 - Aug 2020*

- Worked as a Research Assistant with the Active Perception Group at ASU for Summer 2020

School of Computing, Informatics, and Decision Systems Engineering

ASU

Graduate Teaching Assistant — *Aug 2019 - Dec 2019*

- Course : CSE 110 - Principles of Programming (Java)
- Responsible for conducting Lab Sessions, Office Hours and Grading Exams

Sahir Projects

Pune, India

Machine Learning Engineer — *Jul 2018 - Apr 2019*

- Engineered a Machine Learning proof-of-concept exercise resulting in the eventual adoption of a Machine Learning framework by the company
- Synthesized training data for the exercise by making use of random normal distributions and labeled it using a complex rule based system
- Designed a model to predict the probability of a company winning a bid using a Random Forest classifier for its low bias, resulting in a 9% increase in the number of bids won compared to the last financial quarter

Projects

Online Prediction for Vision-based Active Pursuit using Domain Agnostic Offline Motion Model

IEEE ICRA'21

Masters Thesis — *Nov 2020*

- Hypothesis : The ability to predict the future location of an evader in vision-based pursuit can be utilized to capture it faster
- Proposed the use of an encoder-decoder LSTM as a predictive model that can produce more accurate estimations of an evader's future location when compared to conventional filtering-based methods such as Kalman Filtering
- Evaluated the effectiveness of this approach by setting up pursuer and evader vehicles in a MORSE environment which showed a 26% faster capture of the evader using our method
- Empirically proved that our method is adaptable across domains without the explicit need to retrain the prediction module by evaluating it in the CARLA environment (low mean prediction RMSE over 100 runs)
- Our contributions establish a foundation for the development of robust tracking and pursuit methodologies to be used by Autonomous Vehicles

The Scope of Human Computer Interaction

Undergraduate Degree Project — *Jul. 2017*

- Designed an Android application to help obtain information about any location towards which the device camera is pointed, resulting in an elevated usability index (HCI) for conventionally used Navigation Apps
- Provided the user with a feature to pan the camera during which, an AR-based overlay containing information about the target location is displayed on the screen of the host device
- Responsible for the processing of the sensor data and the rendering the overlay by leveraging the Android Studio IDE
- Led a 4-member team to first place in National Paper Presentation Threshold'17

Technical Proficiency

Languages

- Python, Java, C++, C#, HTML5 / CSS3, JavaScript, SQL

Simulators /Frameworks / IDEs / Libraries

- CARLA, MORSE, ROS, Gazebo, OpenCV Tensorflow, Torch, Theano, Keras, Seaborn, Matplotlib, Scikit-Learn, Google Firebase, Android Studio, AWS, GCP, Jupyter Notebook , Anaconda

Certificates

- Web Development, AWS Fundamentals Specialization, Computer Vision : OpenCV, SSD and GANs, Machine Learning, Deep Learning, Android Application Development

Honors & Awards

2020	**Engineering Graduate Fellowship (Fall 2020)**, Ira A. Fulton Schools of Engineering	*ASU*
2019	**Engineering Graduate Fellowship (Fall 2019, Spring 2020)**, Ira A. Fulton Schools of Engineering	*ASU*
2017	**1st Place**, THRESHOLD National Level Paper Presentation, Babasaheb Naik College of Engineering	*Pusad, India*