Vivek Shankar

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 Github | LinkedIn

Education

State University of New York, Buffalo (UB)   *Sept 2021 – Present*
M.S. Computer Science
Kalinga Institute of Industrial Tech., Bhubaneswar (KIIT)   *Aug 2014 – July 2018*
B.Tech. Computer Science

Skills

Languages: Proficient in C/C++, Java, Python
Developer Tools: ROS, Git, Matlab, Jupyter Notebook, Visual Studio, Eclipse, Spring Boot
Courses: Operating Sys, Analysis of Algo, Robotics - Planning & Control, Intro to Machine Learning, Natural Language processing, Computer Vision & Image processing, Reinforcement learning

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Experience

VMware   *July 2018 – Aug 2021*
Member of Technical Staff II   *Bangalore*
- Worked on the cloud control plane within the Horizon Cloud Services team which manages multiple Horizon Cloud platforms. (*C/C++*).
- Worked on designing implementing next-generation image service avatar for Horizon Cloud Services. Working with auto-scalable clusters, Spring Boot-based services guaranteeing zero down-time upgrade, async communication over Kafka, etc.
- Developed POC for replicating images across Geo-locations using Azure SIG for customized Horizon Cloud workloads.

VMware   *June 2017 – Aug 2017*
Research Intern   *Bangalore*
- Worked on leveraging the VMware Blast streaming stack to stream a live application from a self-sufficient docker container. Created services to spin up and destroy customised containers from a web app.

Projects

Recommender System   KIIT | *Fall '17*
- A simple python based collaborative filtering engine that recommends movies using the Movielens database.

Pintos   UB | *Fall '21*
- Implemented multi-threading & scheduling/sleep support in pintos. Implemented priority donation and MLFQS advanced scheduler.

Laser-Based Perception and Navigation with Obstacle Avoidance   UB | *Fall '21*
- Implemented obstacle avoidance with Bug2 and Navigation to the goal using RANSAC
- Implemented A* planning to reach a goal using Euclidean distance as the heuristic cost.

Predicting Reddit upvotes   UB | *Spring '22*
- Crawled Reddit posts using praw, collected/cleaned posts. Performed standardization, one-hot encoding etc.
- Extracted meaningful features to predict upvotes with Linear Regression and random forests.

Solving Cartpole & Atari breakout using DQN and its variants   UB | *Spring '21*
- Solved a self-defined Grid environment with multiple rewards and obstacles using DQN.
- Solved Cartpole and Atari breakout using DQN and Dueling DQN.