

EDUCATION

Master of Science in Computer Science	Graduating May 2021
Arizona State University , Tempe, AZ	GPA: 4.00 / 4.00
Bachelor of Technology in Computer Science and Engineering	Graduated May 2017
National Institute of Technology , Warangal, India	

WORK EXPERIENCE

Software Development Engineer Intern – GoDaddy (Part-time), Remote, AZ	Sep 2020 – Present
<ul style="list-style-type: none"> Developing shopping experience for GoDaddy customers to purchase professional email within one of the popular social networking apps. This helps more than 1.5 million followers to purchase within minutes. Implementing the conversational flow in Java using Dropwizard framework and deploying the service in Amazon Elastic Kubernetes Service (EKS). 	
Master's Thesis – Arizona State University , Tempe, AZ	Jan 2020 – Present
<ul style="list-style-type: none"> Research and development on reliability and robustness of autonomous driving system through adversarial attacks on Deep Reinforcement Learning agents and environment. Implemented targeted adversarial attacks by manipulating agent observations in OpenAI Gym's CarRacing-v0. Reproduced a stronger model-based adversarial attack on self-driving agent by creating dynamics model of simulator using variational autoencoder and recurrent neural networks. Developing a new type of adversarial attack that is realistic and easier for adversary to fool agent. 	
Software Development Engineer Intern – GoDaddy , Remote, AZ	May 2020 – Aug 2020
<ul style="list-style-type: none"> Developed a new social media bot connector from scratch to help expand GoDaddy's international market in south east Asia region. This will help more than 200 million users to purchase products in the app with ease. Designed and developed multiple RESTful APIs to track followers and send push notifications of products. Implemented the end-to-end system in Java using Dropwizard framework and deployed in Amazon EKS. 	
Data Engineer – Target , Bangalore, India	Jul 2017 – Aug 2019
<ul style="list-style-type: none"> Created automation process for validation and recovery of fulfillment centers operations data in Hadoop through Apache Oozie, Sqoop and Hive. Brought down the running time of the process by 25%. Enhanced data parser application to reduce the number of files writable to Hadoop Distributed File System. Resulted in the improvement of Hive query performance by 40%. Created production tables in Hive that are rapidly used by more than 5 teams across the enterprise. Developed front end of employee learning website using React JS. Received a rating of 4.9/5 from the users. 	

ACADEMIC PROJECTS

Community Drive - CDrive	Mar 2020 – May 2020
<ul style="list-style-type: none"> Developed the application CDrive as a part of team project where users can store their files in the storage devices volunteered by other users. Designed the architecture and finalized the end-to-end system using Google Cloud products such as App Engine, Firebase, Pub/Sub and Storage. Developed complete front-end in React JS and hosted it in Firebase with Realtime database as metadata store. 	
Pursuit Evasion Game	Mar 2020 – Apr 2020
<ul style="list-style-type: none"> Developed a pipeline to track human with turtlebot in Gazebo. Generated map of scene using SLAM and then set up autonomous navigation with goals. Implemented pre-trained MobileNet SSD algorithm to detect the human from bot camera live feed. Estimated depth and position of human using bounding boxes which then used to track the human in the scene. 	
Real-time Object Detection in Cloud for Surveillance Systems	Jan 2020 – Mar 2020
<ul style="list-style-type: none"> Designed autoscaling architecture to minimize the end to end latency of object detection in videos captured by Raspberry Pi using Amazon S3, SQS and EC2. Used pretrained DarkNet with YOLO algorithm to detect objects. Developed the communication module between Pi and SQS using Python language and AWS SDKs. 	
Camera Model Estimation and Reconstruction from Two Views	Jan 2020 – Mar 2020
<ul style="list-style-type: none"> Estimated camera parameters and rectified stereo from checkerboard images using OpenCV functions. Extracted features using ORB detector from two view images and reconstructed the 3D points along with camera pose. 	

Cartoon Generation for Human Faces

Oct 2019 – Dec 2019

- Implemented Conditional Generative Adversarial Networks (CGAN) to generate cartoon face image based on given human face image. Applied the CGAN to transfer CelebA source dataset to CartoonSet target dataset.
- Developed the application using Python language and PyTorch as deep learning framework.

Large Scale Geo-Spatial Data Analysis

Oct 2019 – Dec 2019

- Performed data analysis on New York Taxi Trip dataset in SparkSQL.
- Implemented user defined functions such as ST_Contains and ST_Within in scala which are used to execute spatial queries in order to identify pick-ups and drop-offs inside a particular region and trips within a distance.

Steganography for hiding text in images

Jan 2017 – Apr 2017

- Implemented canny edge detection method to find out edges of image.
- Encrypted sensitive text using AES and replaced image edges nibble with secret text nibble to accommodate more information. Produced 8.7% less distortion in image after hiding compared to other baseline techniques.

Detection of Acute Lymphoblastic Leukemia

Aug 2016 – Jan 2017

- Extracted features such as area, perimeter, circularity, solidity, eccentricity etc. from microscopic blood images using C++ language and OpenCV library.
- A support vector machine model is trained on the extracted features to classify healthy vs unhealthy cells and achieved an overall accuracy of 86.66%. Publication [link](#).

Attendance management system

May 2016 – Jul 2016

- Developed an android application to manage attendance of a class with login features.
- Implemented in android studio using Java language and SQLite as database.

Alumni news website

Feb 2016

- Scrapped news feeds using beautiful soup python library and used a natural language processing model to find school relevant articles.
- Developed the website using python language and flask as web framework.

EXTRACURRICULAR ACTIVITIES

- One of the first 100 contributors to Open-source textbook, Dive into Deep Learning, [d2l.ai](#) which is a textbook/reference book for more than 70 higher educational institutions.
- Built a real time crowd sourcing complaint register system as a part of HackTech, 2020 virtual hackathon team organized by CalTech. The application assigns points to the users based on their valid complaints, which is then used to rank the users and distribute swag. Received honorable mention from Google Cloud sponsor.
- Lead a team at Target India hackathon and developed a website for team member learning resources which then converted into official product team.
- Served as a Sub Coordinator and handled three major computer science coding events at Technozion 2015, South India's second largest technical fest. Lead multiple teams of event managers, and workforce with each event attracting more than 150 students.

AWARDS & HONORS

- Master's Opportunity for Research in Engineering (MORE) award from Ira A. Fulton Schools of Engineering, ASU for Spring 2021.
- Engineering Graduate Fellowship from Ira A. Fulton Schools of Engineering, ASU for Fall 2020.
- Quarterly award for Q2, 2018 at Target as a part of Be One Team.
- Best employee of the month in Data Engineering organization at Target for May 2018.
- National Merit Scholarship from Ministry of Human Resource Development, India for securing All India Rank of 1506 in Joint Entrance Examination Mains among 1.4 million students.

TECHNICAL SKILLS

- **Languages** – Python, Java, C++, Scala, SQL, React JS, Shell
- **Frameworks / Libraries** - PyTorch, Apache MXNet, OpenAI Gym, Dropwizard, AWS
- **Big Data** – Hadoop, MapReduce, Hive, Sqoop, Oozie, Spark, Kafka
- **Tools** – Git, Jenkins, Drone, Docker, Jira, Confluence
- **Coursework** – Computer Vision, Robotics Perception, Artificial Intelligence, Machine Learning, Statistical Learning, Applied Linear Algebra, Distributed Systems, Cloud Computing, Data Structures and Algorithms.