

SRINATH NAIK AJMEERA

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Education

University of California Los Angeles (UCLA), Los Angeles, CA

Master's in Computer Science - GPA 4.00/4, Expected December 2022

Indian Institute of Technology Bombay, Mumbai

Bachelor's in Computer Science & Engineering - GPA 8.26/10, May 2018

Courses Undertaken/planning

- Introduction to Machine Learning, Machine Learning Algorithms, Computational Robotics, Computational Imaging , Deep Learning , Statistical Computing&Modelling in Vision & Cognition
- Interests : Machine Learning & Artificial Intelligence, Robotics, Computer Vision

Research Oriented Projects

Mode collapse in Generative Adversarial Networks

UCLA

Guide: Prof. Quanquan Gu (October 2021 - December 2021)

- Explored GANs and its variations, focusing on mode collapse problem by performing an extensive survey
- Identified key mitigation strategies based on regularization, manifold-guide and multi-generator, proposed open directions of research

Enhancing SLAM in dynamic environments

UCLA

Guide: Prof. Ankur Mehta (October 2021 - December 2021)

- Devised an algorithm to detect dynamic objects from a video using semantic segmentation(Detectron2), applying motion vector clustering and generating a probabilistic pixel wise motion model
- Integrated it into ORB-SLAM2 to make use of only static keypoint for localization, mapping & loop closing, making it robust to dynamic environments

Smart phone based digitization of printed books

IIT Bombay

Guide: Prof. Shivaram Kalyanakrishnan and Prof. Siddhartha (July 2017 - May 2018)

- Developed an interactive smart-phone application to digitize textual content in printed books. The idea is to place a smart-phone at certain height above a book and take pictures using selected speech commands
- Built a limited speech command classifier using CNN on spectrograms of one second long custom commands collected from various people, an idea inspired from simple audio recognition in tensorflow
- Invented a method to automatically extract single page images of left and right part from captured two page image and later are fed to a de-curling engine based on a pre-trained Neural Network model, giving us flat page as output

Work Experience

Amazon

Bangalore

Software Development Engineer (April 2021 - August 2021)

- Created High Level Design(HLD) & Low Level Design(LLD) for 'Serial Scan' project - enabling serial number regex/deep validation of products at various stages of shipping/returns journey
- Created High Level Design(HLD) for 'Same Day Resolution' project - to display a card on detail page of Amazon.in regarding availability of same day resolution/technician visit of a particular product

Apple

Hyderabad

Software Development Engineer (June 2018 - February 2020)

- Managed Registration, Access Management & Provisioning platform, focused on a set of applications to grant and manage access of users to various applications across apple
- Got a hands-on experience of spring, spring-boot, elastic search, oracleDB etc.

Key Projects

Order smarT - a Multi-Vendor Pickup/Delivery App

Remote

Architect, Developer (March 2020 - December 2020)

- Led design and development of 'Order smarT', a delivery/pickup application supporting customers and local stores
- Project included UI/UX, Backend & Architecture Design, Development and Deployment of four applications (customer/store/delivery/admin) for both Android and iOS platforms
- Hands on experience with React-Native, Ionic, MongoDB, Node.js, Redux Storage, Firebase, Heroku etc.

Key Courses

- Data Structures & Algorithms, Design & Analysis of Algorithms, Discrete Structures, Automata Theory, Foundations of Intelligent Agents, Digital Image Processing, Artificial Intelligence, Databases, Operating Systems, Software Systems, Implementation of Programming Languages, Computer Architecture, Computer Networks, Network Security

Skills

- Languages: C++, C, Python, Java, Go
- Other: HTML, CSS, JavaScript, PHP, Flask, Django, PyTorch, Tensorflow, OpenCV, scikit-learn