Srinath Naik Ajmeera

Master's in Computer Science
University of California Los Angeles
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Education

Bachelor's in Computer Science & Engineering — GPA 8.26/10 — Mumbai
Indian Institute of Technology Bombay — 2018

Intermediate/+2, MPC — 94.9% — Hyderabad
Board of Intermediate Education Andhra Pradesh — 2014

Secondary School Certificate (SSC) — GPA 9.8/10 — Warangal
SPR Schools of Excellence — 2012

Interests

- Image Processing & Computer Vision, AI & ML, Robotics

Work Experience

Software Development Engineer — *April 2021 - August 2021*
Amazon — *Bangalore*

- Was part of the Hardlines DEX/REX team, contributing to delivery and returns experience of Hardlines products like TV, Refrigerator & Hight Considerate Technical Products like Laptops, Tablets.
- Worked on design & solutioning(HLD, LLD) of 'Serial Scan' project - which enables serial number regex/deep validation of products at various stages of shipping/returns journey.
- Contributed to 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 for the product.

Software Engineer — *November 2020 - January 2021*
GetMega — *Bangalore*

- Joined the Growth team as a Full Stack Developer, began working in ReactJS and Go (*had to leave due to financial breakout of the company)

Software Development Engineer — *June 2018 - Feb 2020*
Apple — *Hyderabad*

- Worked as a core back-end developer in Registration, Access Management & Provisioning team, focused on a set of applications which grant and manage access of users to various applications across apple.
- Got a hands-on experience of various technologies like spring, spring-boot, elastic search, oracleDB etc.
- Contributed to proof-of-concept of Augmented Reality(AR) based internal navigation application.

Research Intern — *Summer 2017*
Samsung R&D Institute — *Noida*

- Developed an internal search tool to find the most relevant previously resolved PLM issues using a variant of BM25 scoring function to rank the issues for a given query, based on keywords

Research Experience

Smart-phone based digitization of printed books — *Bachelor's Thesis*
Guide: Prof. Shivaram Kalyanakrishnan and Prof. Siddhartha Chaudhuri — *IIT Bombay*

- Our team collectively worked towards building an interactive smart-phone application to digitize textual content in printed books. The idea is to place the smart-phone a certain height above the book and take pictures using selected speech commands.
- We focused on key problems such as efficient offline speech recognition, segmenting out a single page and handling the curvature of the page for a better OCR accuracy.
- 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.
- Developed a method to automatically extract single page images of left and right part from captured two page image which later are fed to a de-curling engine which works based on a pre-trained Neural Network model, giving us the flat page as output
- Collected images of 20 pages each from 12 books in different languages along with corresponding ground truth digital content using the built application at a rate of 14 pages/minute with repetition rate of 2 per 10 pages and created datasets for testing

Key Projects

'Order smarT' - a Multi-Vendor Pickup/Delivery App *March 2020 - October 2020*
Independent Project involving couple of other friends — just for the pandemic *Remote*

- Contributed to the design and development of 'Order smarT', a delivery/pickup application supporting customers and local stores during the pandemic.
- Project included UI/UX, Back-End & 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.
- Apps include powerful features such as Phone/Email Authentication, Push Notifications, Navigation and serves for Multi-Vendor E-commerce products ordering, inventory management and pickup/delivery facilities.

Efficient regret-minimization algorithms for multi-armed bandits *Autumn 2017*
Guide: Prof. Shivaram Kalyanakrishnan *IIT Bombay*

- Studied various algorithms like greedy, e-greedy, UCB, KL-UCB and β-UCB for solving typical exploration versus exploitation dilemma in multi-armed bandits and implemented the same
- Performance of these algorithms are tested on various instances of multi-armed bandits and verified convergence of cumilative regret over large horizons

Citrus Yield Prediction *Autumn 2016*
Guide: Prof. Ajit Rajwade and Prof. Suyash P. Awate *IIT Bombay*

- Implemented an algorithm for estimating count of ripe fruits on citrus plants
- Used circular hough transform(CHT) to detect circular objects in the image for guessing fruits. Maximal patches from those circular objects are taken and classified into fruit or leaf by using a pre-trained SVM classifier

Institute Event Management System *Autumn 2016*
Guide: Prof. S.Sudarshan *IIT Bombay*

- Developed an application for managing various events in an institute conducted by different clubs
- Used PostgreSQL database, JAVA for back-end on server side , UI and client side are done in Android
- Implemented authentication and multiple levels of access control for users, admins, managers etc.

Key Courses

- **Theoretical CS:** Data Structures & Algorithms, Design & Analysis of Algorithms, Discrete Structures, Automata Theory, Foundations of Intelligent and Learning Agents
- **Applied CS:** Digital Image Processing, Artificial Intelligence
- **Systems:** Databases, Operating Systems, Software Systems, Implementation of Programming Languages, Computer Architecture, Computer Networks, Network Security and Cryptography
- **Mathematics:** Numerical Analysis, Linear Algebra, Differential Equations, Calculus

Other Course Projects

- **Unsupervised Image Classification:** Implemented kmeans algorithm in MATLAB for classification of remotely sensed satellite image into various land cover classes
- **OS Improvements:** Introduced new features like Copy-on-Write fork and priority based process scheduling into the xv6, a Unix-like teaching operating system
- **Face Recognition:** Studied Principal Component Analysis(PCA) and implemented face recogniton using eigenfaces in MATLAB

Skills

- **Languages:** C++, C, Python, Java, Go
- **Web Development:** HTML, CSS, JavaScript, PHP

Extracurricular

- Successfully completed a course NSO in Volley ball at IIT Bombay
- Worked as organizer in Techfest 2015, helping lectures of eminent personalities
- Interested in playing chess and solving puzzles such as sokoban and rubik's cube