

Naga Siva Subramanyam Makam

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EDUCATION

University of California San Diego

Master of Science in Computer Science and Engineering

San Diego, CA

Expected: March 2023

International Institute of Information Technology (IIIT-H)

Bachelors in Computer Science (Hons. Computer Vision) CGPA 9.36/10 (3.8/4.0), Dean's List recipient

Hyderabad, India

July 2020

EXPERIENCE

Amazon.com, Inc.

Software Development Engineer · Amazon Fresh

Bangalore, India

Dec 2020 - Aug 2021

- Developed a precompute system from scratch using AWS infrastructure to compute product data required for recommendation projects across Amazon Fresh. The computed data is used for generating faster recommendations and improving customer experience.
- Designed the infrastructure for the precompute system and led its extensibility and scalability across multiple usecases. extensibility of precompute system helped in driving Savings maximizer and can help in driving recommendation projects to success in future quickly, saving an effort of approximately 3 months for each project.
- Developed a widget on Amazon Fresh titled Savings Maximizer providing product recommendations with lowest price per unit, customer brand preference at millisecond latency, enabling customers to maximise their savings in grocery purchase. Impact: The widget is expected to create significant increase in order product sales and increase revenue for Amazon Fresh.
- Technologies used: Java, Typescript, AWS: S3, DynamoDB, SNS, Lambda, SQS, Stepfunction, Cloudwatch

Adobe Inc.

Software Development Engineer · Software Engineer Intern

Noida, India

Aug 2020 - Dec 2020, May 2019 - July 2019

- Engineer in the AcrobatJS team at Adobe, goal is to build a fully functional Adobe Acrobat on the web. Worked in the field of mobile optimization, developed zooming capability in slide mode PDF view, onboarded inline search and page scrubber on Acrobat web.
- Software Engineer intern in Adobe Exchange team (exchange.adobe.com). Built a recommendation system to recommend product extensions to customers using a siamese positive-negative pair neural network and integrated it with Adobe Exchange. Achieved an accuracy of 82 percent for the model. (PPO offered)
- Technologies used: React, Redux, Python, Java, Tensorflow

International Institute of Information Technology (IIIT-H)

Undergraduate Researcher · Teaching Assistant

Hyderabad, India

May 2018 - July 2020

- Full time honours student at Computer vision lab under the director of IIIT (Prof P.J.Narayanan). Developed an unsupervised algorithm to learn image representation in style space which can be used for image retrieval. Research paper was accepted at WACV 2020. Performed extensive research and developed a system using deep learning to perform view extrapolation on real world images.
- Teaching assistant for Optimization methods (Spring 20), Operating Systems (Fall 18) and Machine Learning (Fall 19) courses.

PROJECTS & SKILLS

Ultimate TicTacToe (Artificial Intelligence course, Tech: Python)

- Developed a bot using alpha beta heuristic search and minimax algorithm to play tic-tac-toe in a 16 X 16 grid in python.

BFS distributed systems (Distributed Systems course, Tech: Erlang, Python)

- Implemented a breadth-first search in a distributed environment using algorithms such as sequential search, parallel search, 1D partitioning and 2D partitioning techniques. Performed in depth analysis and experiments on all algorithms

OOPS Design (IT Workshop course, Tech: C++, WebGL, OpenGL)

- Developed games similar to Mario (2D), Legend of Zelda (3D) and Tunnel Rush (3D) in OpenGL (C++) and WebGL (Javascript) using OOPS concepts such as inheritance, polymorphism, encapsulation and abstraction .

Proxy Server (Computer Networks course, Tech: Python, socket programming)

- Implemented a multi-threaded proxy server which servers multiple requests from users using TCP/UDP protocols for file transfer with LRU (least recently used) caching for faster file transfer using HTTP response codes.

Canteen Portal (Software Engineering Course, Tech: Python, Django, HTML, CSS, ReactJS)

- Designed a Canteen portal providing functionality for students to subscribe, customize meal plan for everyday, calendar to display meal schedule and billing information.

Programming Languages: C++, Python, Java, C, HTML, CSS, MySQL, Javascript, TypeScript

Libraries and Tools: AWS, Pytorch, Tensorflow, Django, React, scikit-learn, OpenCV

Relevant Courses: Computer Programming, Data structures, Algorithms, Software Engineering, Operating Systems, Computer Networks, Computer Vision, Database systems, Distributed Systems, Optimization Methods, Artificial Intelligence, Machine Learning