

Shanmukh Swaroop Srinivas

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EDUCATION

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- University of Massachusetts Amherst** Amherst, MA
• *Master of Science in Computer Science (Eligible for Internships in Summer '21)* Jan '21 – Present
Relevant courses: Systems for Data Science, Machine Learning
 - Indian Institute of Technology Madras** Chennai, India
• *Bachelor of Technology in Chemical Engineering; GPA: 8.65/10.0* Aug. '16 – July. '20
Relevant courses: Data Structures and Algorithms, Graph Theory, Computer Organization and Architecture

EXPERIENCE

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- JP Morgan Chase & Co.** Bengaluru, India
• *Software Engineer Intern* Summer '19
 - **Work Visualization:** Worked with the Tech team of **Corporate and Investment Banking** to develop a **React.js** based web application that visualizes work progress of employees.
 - **Bank balance prediction:** Built a supervised machine learning model with **99.73%** prediction accuracy, earning award from higher management as a part of JP Morgan Chase's **Global Hackathon**.
 - Real Tycoon** Chennai, India
• *Software Developer Intern* Summer '18
 - **Data Analysis:** Analyzed real estate data from a city and devised an algorithm to find the best location with minimal living costs, sought facilities and the best value for money.
 - **Full Stack Web Development:** Single-handedly developed a dynamic and modern website for a digital marketing agency, by incorporating **Javascript, jQuery, PHP, and MySQL**.

PROJECTS

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- **SafeSpot - HackUMass VIII:** Developed a React.js based web application that generates a COVID-19 Safety Score for any place on the globe using Sentiment Analysis of Local Tweets and Scraped Google Reviews.
 - **Cryptocurrency Trading Algorithm:** Used Sentiment Analysis on Scraped Relevant Articles and Swap Funding Rate.
 - **REST API Integration:** Developed and integrated REST APIs for an at-home services provider mobile application.

RESEARCH EXPERIENCE

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- Weighted Graph Partitioning Algorithm for Optimal Sensor Placement**
• *Guide: Dr. Sridharakumar Narasimhan, IIT Madras* February '19 - September '19
 - Worked on an efficient partitioning algorithm by weighing the edges of a power system network which is conceptualized as a graph with the electrical lines as edges and buses as nodes.
 - The proposed modification will ensure that a line of higher impedance is preferred over a line of lower impedance, to be in the cutset.
 - Algorithm to obtain Maximal cut on a polygon with dead zones**
• *Guide: Dr. Sridharakumar Narasimhan, IIT Madras* September '19 - May '20
 - Worked on an optimization algorithm to maximally cut a polygon with dead zones into circles of user-defined sizes.
 - The proposed algorithm was dimensionally robust enough to be able to solve volume and length problems.

CONFERENCES ATTENDED

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- **IPSE 2019 - IIT Madras:** Presented a poster on Weighted Graph Partitioning Algorithm at Indian Process Systems Engineering Conference (IPSE), Chennai, India

AWARDS AND RECOGNITION

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- **Sangam ML Hackathon - Runners-up:** Built spacio-temporal models to predict and visualize pollution levels in major cities with data collected from dedicated sensors.
 - **KVPY Scholar:** Secured an All India Rank of **113** and a recipient of KVPY fellowship offered by IISc, Bangalore.

PROGRAMMING SKILLS

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- **Languages:** Fluent in C++ and Python;
 - **Technologies:** Git, MATLAB, GNU Octave, L^AT_EX
 - **Web Development :** HTML, CSS, Javascript, PHP, MySQL, AJAX
 - **Libraries :** Scikit-learn, NumPy, TextBlob, NLTK, Pandas