

# Shanmukh Swaroop Srinivas

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## EDUCATION

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- **University of Massachusetts Amherst** Relevant courses: Advanced Algorithms, Machine Learning  
*Master of Science in Computer Science* Expected Graduation: May '22
- **Indian Institute of Technology Madras** Relevant courses: Data Structures and Algorithms, Graph Theory  
*Bachelor of Technology in Chemical Engineering; GPA: 8.65/10.0* May '20

## PROGRAMMING SKILLS

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- **Languages:** Python (Fluent), C++ (Familiar) **Web Development :** HTML, CSS, Javascript, PHP, MySQL, AJAX
- **Technologies:** Git, MATLAB, GNU Octave, L<sup>A</sup>T<sub>E</sub>X **Libraries :** Scikit-learn, NumPy, TextBlob, NLTK, Pandas

## EXPERIENCE

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- **JP Morgan Chase & Co.** Skills: Python, React.js, Scikit-learn  
*Software Engineer Intern* May '19 - July '19
  - Visualized work progress of employees using a **React.js** based web application in collaboration with a team of 25 people.
  - Forecasted bank balances using a **Supervised Machine Learning** model with **99.73%** prediction accuracy, earning award as a part of JP Morgan Chase's **Global Hackathon**.
  - **Productionized** both the projects during the internship.
- **Anyelp - an on-demand services company** Skills: HTML, CSS, Javascript, PHP, MySQL, AJAX  
*Freelance Software Developer* May '20 - July '20
  - Developed and integrated **REST APIs** with the mobile application which fueled an **additional major revenue stream** through the Service Click-and-book functionality. [\[Project link\]](#)
  - Succeeded in developing **Full Stack Web Applications** to book at-home services by integrating **REST APIs** and **Google Maps APIs**. [\[Project link\]](#)
- **Real Tycoon - a digital marketing startup** Skills: Python, HTML, CSS, Javascript, PHP, MySQL  
*Software Developer Intern* May '17 - July '17
  - 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.
  - Designed and 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** [\[Github\]](#): Skills: Python, Flask, React.js
  - Produced a **COVID-19 Safety Score** for any place on the globe using Scraped Google Reviews and Sentiment Analysis of Local Tweets about vaccines.
- **Cryptocurrency Trading Algorithm** [\[Github\]](#): Skills: Python, TextBlob, NLTK
  - Incorporated **Sentiment Analysis** on Scraped Relevant Articles and Swap Funding Rate.
  - Generated a profit of **~1200%** during backtesting.
- **Lowest pollution route - Sangam ML Hackathon (Winners)** Skills: Python, Scikit-learn
  - Processed GPS pollution data from multiple mobile sensors & handled missing GPS data using vector calculus.
  - Built **Spacio-Temporal prediction models** using **LSTM** and **SARIMA** to visualize pollution levels and to find the route with the lowest pollution.
- **Weighted Graph Partitioning Algorithm for Optimal Sensor Placement** Skills: MATLAB  
*Guide: Dr. Sridharakumar Narasimhan, IIT Madras* February '19 - September '19
  - Formulated 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.
  - Expedited the runtime of the algorithm by **~20%** after the proposed modification.
  - Presented a poster at Indian Process Systems Engineering Conference (IPSE), Chennai, India