Shanmukh Swaroop Srinivas

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Education

- **University of Massachusetts Amherst** — Relevant courses: Advanced Algorithms, Machine Learning
  Master of Science in Computer Science — *Expected Graduation: December '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

- **Languages**: Python (Fluent), C++ (Familiar)
- **Technologies**: Git, MATLAB, GNU Octave, LaTeX
- **Web Development** : HTML, CSS, Javascript, PHP, MySQL, AJAX
- **Libraries** : Scikit-learn, NumPy, TextBlob, NLTK, Pandas

Experience

- **JP Morgan Chase & Co.** — Skills: Python, React.js, Sckikit-learn
  Software Engineer Intern — *May '19 - July '19*
  - Collaborated with the Tech team of ¡x¿ people **Corporate and Investment Banking** to develop a **React.js** based web application that visualizes work progress of employees.
  - 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**.

- **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

- **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 (Runners-up)** — 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