Shanmukh Swaroop Srinivas

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EDUCATION

- **University of Massachusetts Amherst**
  Master of Science in Computer Science

  Relevant courses: Advanced Algorithms, Machine Learning
  Expected Graduation: December '22

- **Indian Institute of Technology Madras**
  Bachelor of Technology in Chemical Engineering; GPA: 8.65/10.0

  Relevant courses: Data Structures and Algorithms, Graph Theory
  May '20

PROGRAMMING SKILLS

- **Languages**: Fluent in Python and familiar with C++;
- **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.** May '19 - July '19
  Software Engineer Intern *Skills: Python, React.js, Sckikit-learn*
  - **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**: 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** May '20 - July '20
  Freelance Software Developer *Skills: HTML, CSS, Javascript, PHP, MySQL, AJAX*
  - 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** May '17 - July '17
  Software Developer Intern *Skills: Python, HTML, CSS, Javascript, PHP, MySQL*
  - **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.
  - 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*
  - Generated 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 ∼**1000%** during backtesting.

- **Sangam Machine Learning Hackathon - Runners-up** *Skills: Python, Scikit-learn*
  - Built spacio-temporal models to predict and visualize pollution levels in major cities with data collected from dedicated sensors.

- **Weighted Graph Partitioning Algorithm for Optimal Sensor Placement** February '19 - September '19
  Guide: Dr. Sridharakumar Narasimhan, IIT Madras *Skills: MATLAB*
  - 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

- **Plate Packing Problem** September '19 - May '20
  Guide: Dr. Sridharakumar Narasimhan, IIT Madras *Skills: Python, SciPy*
  - Conceptualized an optimization algorithm to maximally cut a polygon with dead zones into circles of user-defined sizes.