# Shanmukh Swaroop Srinivas

https://shanmukh11.github.io/

Email : shanmukhs99@gmail.com
Mobile : +1 (413) 379-6136

## EDUCATION

**University of Massachusetts Amherst**                   Amherst, MA
- *Master of Science in Computer Science (**Eligible for Summer '21 CPT**)*     *January '21 – December '22 (Expected)*
  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*     *August '16 – July '20*
  Relevant courses: Data Structures and Algorithms, Graph Theory, Computer Organization and Architecture

## EXPERIENCE

- **JP Morgan Chase & Co.**                   Bengaluru, India
  *Software Engineer Intern*                   *May '19 - July '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*                   *May '17 - July '17*
  - **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

- **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 PROJECTS

- **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

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

## AWARDS AND RECOGNITION

- **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

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