Shanmukh **Srinivas**

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Education

University of Massachusetts Amherst — *Amherst, MA*

M.S. in Computer Science (Concentration in Field experience) - GPA: 3.96/4.00 — *Expected: Dec. '22*

Relevant courses: Theory and Practice of Software Engineering, Advanced Algorithms, Distributed and Operating Systems

Indian Institute of Technology Madras — *Chennai, India*

Bachelor of Technology in Chemical Engineering (Minor in Systems Engineering) — *Jul. '16 - May '20*

Relevant courses: Data Structures and Algorithms, Graph Theory, Multivariate Data Analysis, Discrete Mathematics

Skills

Languages	Python (Fluent), C++ and Java (Familiar)
Web Development	HTML, CSS, PHP, MySQL, D3.js, React.js, Flask
Technologies	Git, MATLAB, LaTeX, JIRA, Agile, Docker, Perforce
Libraries	Scikit-learn, NumPy, TextBlob, NLTK, Pandas, PyTorch

Experience

Mathworks — *Natick, MA*

Engineering Development Group Intern — *May '22 - PRESENT*

- Currently meeting the Software development requirements of the GPU Coder team
- Designing the front-page for the Profiling tool of GPU coder using **D3.js**.

Aspen Technology — *Bedford, MA*

Data Science Intern — *May '21 - Aug. '21*

- Enhanced the functionality of **Aspen ProMV™** - a Multi-Variate analysis tool used by chemical plants across the globe.
- Researched and implemented various **Clustering** algorithms and performed deep-dive analysis on **historical time-series data**.
- Constructed a **Failure-agent** with **10%** improvement in accuracy for Batch processes at Chemical plants.
- **Technologies used**: Python, scikit-learn

JP Morgan Chase & Co. — *Bengaluru, India*

Software Engineer Intern — *May '19 - Jul '19*

- Visualized 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.

Projects

Microservices-Based Toy Store — *UMass Amherst*

COMPSCI 677 (Distributed and Operating Systems) Course Project — *Spring '22*

- Developed a distributed server application using a multi-tier **microservices-based** architecture.
- Deployed and containerized the application using **Docker**.
- Implemented **caching** and **replication** for high performance and availability.

Elevation-based Navigation — *UMass Amherst*

COMPSCI 520 (Theory and Practice of Software Engineering) Final Project — *Fall '21*

- Developed a software system that finds the most optimal route between two points, taking into account the elevation gains in its path.
- **Technologies used**: Python, React.js, Flask, Open-Elevation API

Freelance Software Development — *Remote*

- Developed a **Full Stack Web Application** to book at-home services by integrating **REST APIs** and **Google Maps APIs**. [Project link]
- Contributed to the mobile application which fueled a **major revenue stream** through the Service Click-and-book functionality. [Project link]

SafeSpot - [Repo Link] — *UMass Amherst*

HackUMass VIII - Hackathon Project — *Dec. '20*

- Constructed a **COVID-19 Safety Score** for any place on the globe using Scraped Google Reviews and **Sentiment Analysis** of Local Tweets.
- Leveraged **React** and **Flask** to develop a web application to take location as input and to display the corresponding Safety Score as output.