

Siddharth Mal

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Portfolio - siddharthmal.netlify.app

OBJECTIVE

Being a self-motivated **master's** student from the University of Central Florida, I am seeking a **full-time opportunity** in **IT/ Software Engineering/ Development/Web Development** fields. I have experience in developing different applications in the full life cycle of the software design process including requirements, analysis, design, interface implementation, testing, and maintenance in **Agile methodology, Full Stack, and MERN Stack**.

EDUCATION

University of Central Florida, Orlando, Florida **Aug 2019 – May 2021**
Master of Science, Computer Science **GPA- 3.917/4**
Relevant Course Work - Design & Analysis Algorithms, Advanced Computer Architecture, Computer Vision, Advanced Text Mining, Machine Learning, Advanced Artificial Intelligence, Data Intensive Computing.

Savitribai Phule Pune University, Pune, India **Aug 2015 – June 2019**
Bachelor of Engineering, Computer Science Engineering **GPA- 7.3/10**

SKILLS

Languages: Python, Java, HTML/CSS, JavaScript, C++ | **Databases:** Oracle SQL, SQL Server, Mongo DB, Elasticsearch | **Frameworks:** Spring, Express.js
Cloud Applications: Google Cloud, Amazon Web Services, Firebase, GraphQL | **Android Applications:** React Native, Android Studio
Soft Skills: Collaboration, Research, 14 Leadership principles | **Libraries:** React.js, NumPy, Scikit-Learn, TensorFlow, OpenCV, Spacy, Pandas, Pytorch
Tools and Runtimes: Node.js, Agile Tools, Visual Studio, Git, Docker, VMware, HDFS, YARN, Spark, ELK stack | **Architecture:** SaaS, SOAP, REST

RELEVANT EXPERIENCE

Teaching Assistant in University of Central Florida, Orlando, FL **Aug 2019 – Present**
CS1 & C/C++ Programming Lab – Team collaboration with 6 members for undergraduate CS students to help them implement basic data structures.

- Supervising and assisting 500 students to solve programming exercises based on Linked Lists, Stack, Queue, Trees, etc.
- Providing doubt clearing sessions and responsible for grading assignments, class participation, and exams.

PROJECTS

Ecommerce website using Reactjs <https://annapurna-sweets.herokuapp.com/> **Jan 2021**
Spearheaded a full-stack ecommerce website showcasing the front-end development.

- Implemented User authentication and authorization using **Google firebase** and **GraphQL** and **Apollo**.
- Engineered the latest features in React - **Router Hooks, React-Redux, Context API, React Lazy** with **Session Storage** and **Persistence**.
- Handling online payments with **Stripe API** and increased revenue by **85%** while improving the customer base by **40%**.
- Applied **Async Java** using **Redux-Thunk** and **Redux Saga** in this application and implementing **FLUX** pattern.
- Testing the application with **Jest, Enzyme**, and **Snapshot testing** and **Deployment** with **Heroku**.

Real time Streaming and Sentiment Analysis **Nov 2020**
Scraping out live streaming of tweets from **Twitter API** (tweepy) related to the presidential elections and sentiment analysis of the candidates.

- Use of Transformation function on 30,000 tweets with **PySpark Streaming** on geolocation and sentiment analysis in RDD stream batches.
- Implemented **Accumulators** on RDD batches and perform sentiment analysis using **Textblob** to extract sentiment polarity.
- Applying **ELK stack** (Elasticsearch, Logitash, Kibana) to store data using Elasticsearch and visualizing using Kibana dashboard.

Cache and Branch Predictor Simulator **Feb 2020**

- Executed branch predictor simulator for 3 branch prediction techniques - **Bimodal, Gshare** and **Hybrid** in **GCC compiler** using C++ for 1- and 2-way associativity with **100 % validation** and mystery run for 100 log files.
- Rendered **L1** and **L2 cache** simulators for 3 cache policies - **LRU, FIFO** and **Optimal** Cache in GCC compiler using C++ with **94 % validation** on 100 log files.

Natours (Tour Management App) - <https://damp-bayou-78214.herokuapp.com/> **Oct 2019**
Formulated a feature-rich tour plan app with **REST** architecture where users can sign up, login, book and visualize multiple tours using **Mapbox API**.

- Authentication and authorization (including password reset), sending emails using **Sendgrid, Mailtrap** and uploading files.
- Encryption using JWT tokens, credit card payments with **Stripe API** and Server-side rendering with **Pug** templates.
- CRUD operations with NoSQL **MongoDB, Atlas, Compass** and **Mongoose**, testing using **Postman** and middleware using ExpressJS.
- Integrating frontend with backend with **RESTful** API filtering, sorting, aliasing, pagination and **MVC** framework and utilizing **AJAX, JQuery** with **NodeJS** by deploying in **Heroku**.

PUBLICATION

Survey Paper – Fraud Detection and Pattern Matching in Insurance Medi-Claims (IRJET)
<https://www.irjet.net/archives/V6/I1/IRJET-V6I1104.pdf>