# Siddharth Mal

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#### **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 GPA- 7.3/10

Bachelor of Engineering, Computer Science Engineering

#### **SKILLS**

Languages: Python, Java, HTML/CSS, JavaScript, C++ | Databases: Oracle SQL, SQL Server, Mongo DB, Elastisearch | 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 <a href="https://annapurna-sweets.herokuapp.com/">https://annapurna-sweets.herokuapp.com/</a>

Jan 2021

Built a full-stack ecommerce website showcasing the front-end development.

- Implemented User authentication and authorization using Google firebase and GraphQL and Apollo.
- Implemented the latest features in React including Router Hooks, React-Redux, Context API, Suspense, React Lazy.
- Handling online payments with **Stripe API** along with **HOC** and **Container Pattern** with **Session Storage** and **Persistence**.
- 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 (Elastisearch, Logitash, Kibana) to store data using Elastisearch and visualizing using Kibana dashboard.

## **Cache and Branch Predictor Simulator**

Feb 2020

- Implemented 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.
- Implemented 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

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 middlwere 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**