# Anirudh Dutt

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## Education

- **University of Southern California** — *Los Angeles, CA*
  *Master of Science - Computer Science* — *Jan 2022- Dec 2023*
  ***Courses:*** *Analysis Of Algorithms, Databases*
- **MS Ramaiah Institute of Technology** — *Bangalore, India*
  *Bachelor of Engineering - Information Science; GPA: 8.96* — *Aug 2017 - July 2021*
  *Courses: Operating Systems, Data Structures, Analysis of Algorithms, Computer Graphics, Machine Learning, Computer Networks, Databases*

## Skills Summary

- **Languages**: Python, C, JavaScript, SQL, JAVA
- **Frameworks**: Scikit, TensorFlow, Keras, Angular, Flask, NodeJS, Flutter
- **Tools**: Android, GIT, MySQL
- **Soft Skills**: Communication, Project Management, Writing, Team Coordination, Time Management

## Experience

- **BitMango Pvt Ltd** — *March 2021 - Aug 2021*
  *Software Engineer (Full-time)*
  - Full Stack web development: Developed websites for various clients using the MEAN stack. Built APIs for whatsapp chat-bots using Twilio and NodeJS. Core responsibilities included - Managing the back-end, writing endpoints, NodeJS authentication, Testing and code review/ cleanup.
- **Lemon Companies** — *Sep 2020 - Feb 2021*
  *Software Engineer (Internship)*
  - Full Stack web development, Mobile application development: Used DART and Flutter for mobile application development and the MEAN stack for web development.

## Projects

- **Stock Price Prediction and Trend Detection** (LSTM, RNN, Web Scraping, Time Series forecasting): (Publication in review) Research oriented, web application to help users understand the trend that a stock may follow. Data used was from India's NIFTY 50 market. Random Forests and LSTMs were used for the Machine Learning and Deep Learning models, which were then deployed on a Flask app. The app scrapes real time data from the market website. Tech: Python, Flask, Keras, BeautifulSoup, TensorFlow (June '21)
- **Brain Tumor Detection and Segmentation** (Machine Learning, Image Data, Convolutional Neural networks): Used pretrained CNNs (RESNET and VGG19) to detect brain tumors in images. OpenCV library was used for the image processing part. Tech: Python, Numpy, OpenCV, Tensorflow. (March '21)
- **Research and Data visualisation of Accidents in USA** (Data Science, Research): Research oriented project and analysis of accident data collected in USA. Tech: Python, Numpy, Scipy, MatplotLib. (Dec '20)
- **HealthCare Companion** (Flutter, Android, IOS): Flutter mobile app to improve healthcare facilities and availability. Users could also schedule appointments with doctors. Tech: Flutter, Dart, Java. (Dec '20)
- **Diabetes Detection** (Deep Learning, HyperParameter Optimization): Deep learning models were used to detect if a person has diabetes or not based on various features. The data was obtained from UCI's public records. To obtain the best parameters for the model, Gridsearch CV was used for optimization. Tech: Python, Tensorflow, GridSearch (May '20)
- **Scribble** (Java, Swings): Created from scratch, a desktop application that can be used to take notes and to create documents. Tech: Java Swings( Dec '19)
- **Book Catalogue** (Database, Java, SQL): A java application that users could use to store the books they have read, along with the various details of the book. SQL was used as the database. Tech: SQL, Java, JDBC (Jan '20)
- **Wordle Clone (**React, Node)**:** A tutored project, part of a web development course, where ReactJS was used to build a clone of the popular online game Wordle. Tech: React, JavaScript, Node, (March '21)
- **Lane Detection** (OpenCV, Python): A tutored project that used video and image files of driving on a road with marked lanes to detect those lanes. Canny Edge detection algorithm was used. The project was built to process a single image and was then extrapolated by splitting video files into single frames. Course Name - Digital Image Processing, associated with Ramaiah Institute of Technology (Jan 2019)

## Volunteer Experience

- **Web developer at Sanjeevini Clinic** - Built a website for their private business using NodeJS and ExpressJS — *Bangalore, India*
- **Backend developer at Digital Jeevi** - Worked on building APIs and Database schemas for their use cases — *Bangalore, India*