

# Anirudh Dutt

Portfolio: [pandani07.github.io](https://pandani07.github.io)  
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## EDUCATION

- **University of Southern California**

Master of Science - Computer Science; GPA: 3.52/4

Courses: Analysis Of Algorithms, Databases, Machine Learning for Data Science, Security Systems

Los Angeles, CA  
Jan 2022- Dec 2023

- **MS Ramaiah Institute of Technology**

Bachelor of Engineering - Information Science; GPA: 8.96/10

Courses: Operating Systems, Data Structures, Analysis of Algorithms, Computer Graphics, Machine Learning, Computer Networks, Databases

Bangalore, India  
Aug 2017 - July 2021

## SKILLS SUMMARY

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

## EXPERIENCE

- **BitMango Pvt Ltd**

Software Engineer(Internship)

March 2021 - Aug 2021

- 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. Website development pattern was based on the model-view-controller framework.

- **Lemon Companies**

Software Engineer(Internship)

Sep 2020 - Feb 2021

- Full Stack web development, Mobile application development: Used DART and Flutter for mobile application development and the MEAN stack for web development.

## PROJECTS

- **Bird Species Classification (CNN, Transfer learning, Deep Learning):** Used convolutional neural networks and transfer learning to classify species of birds. Number of classes was high and data for each class was sparse, so various image augmentation techniques were used to account for the lack of data. Transfer learning was implemented with EfficientNet B0 and VGG16 models. Base accuracy for EfficientNet was 87% and 60% for VGG16. (Nov 2022)
- **Wordle Clone (ReactJS, NodeJS):** 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 2022)
- **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 2021)
- **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. (Feb 2021)
- **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 2020)
- **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 2020)
- **Diabetes Detection (Deep Learning, GridSearchCV):** 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 2020)
- **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 2020)

## PART TIME WORK EXPERIENCE

- **Instructional Assistant at USC Marshall Business School** - Working under professor Stephen Lind as an instructional assistant. Responsibilities include grading, feedback generation and MS Excel tasks Los Angeles, CA
- **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