

# ANIRUDH SRINIVASAN

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<https://github.com/1997anirudh>

## EDUCATION

Arizona State University, Tempe, AZ

August 2021 – May 2023

Master of Science, Computer Engineering (CS Track)

SRM Institute of Science and Technology, India

July 2015 – May 2019

Bachelor of Technology, Electronics and Communication Engineering

## PROFESSIONAL EXPERIENCE

**Data Engineering Intern, NBCUniversal, New York, United States**

June 2022 – August 2022

*Active Account Generation Tool for Peacock*

- Designed a user-friendly tool to extract Monthly Active Accounts for marketing and data science teams, supporting Peacock.
- Conducted advanced analysis of **200,000** Peacock Premium data points using cutting-edge techniques to gain insights.
- The tool was expected to boost conversions by **10-12%** by converting Premium users to Premium Plus Peacock subscriptions.
- Designed and implemented a robust pipeline utilizing Airflow DAG to automate the process of generating active users.
- Ensured data accuracy and completeness by implementing thorough pre-execution validation and transformation of input.

*Code Coverage for Core Functionality*

- Developed comprehensive test cases using PyTest and Unittest frameworks, covering **90%** of potential edge cases.
- Improved error handling by **20%** with robust logical error checks and data type assertion for arrays.
- Adopted DevOps with Docker for image creation and code deployment, and Kubernetes for scaling on GCP.
- Continuously monitored and optimized application performance for reliability and scalability to meet changing business needs.

**Software Engineer, Larsen and Toubro Infotech, India**

May 2019 – May 2021

*Modern Browser and Grid Remediation*

- Improved website functionality by 90% for 500k users using JavaScript (jQuery) and CSS (Bootstrap) for cross-browser compatibility.
- Conducted R&D to upgrade grid controls, resulting in cost savings by switching from Infragistics 17 to custom UI controls.
- Involved in migration of source code for over **180** applications from SVN to GitHub.
- Optimized website performance by reducing redirect chains and increasing load time by **20%**.

*Production Management and Support*

- Created a template for Jenkins file following the declarative pipeline syntax to build, test and automate deployment of applications.
- Resolved complex table update issue by enabling auto-refresh feature through data analysis and integration expertise.
- Conducted intensive testing on all features and achieved a **100%** pass rate for performance post the .NET framework upgrade to 4.8.

## ACADEMIC PROJECTS

**Offloading images and making prediction on parts of image**

Nov 2022

*Utilized – Java, XML, Python, Flask, OpenCV*

- Designed parallel image processing leading to a **40%** reduction in processing time compared to single-device processing methods.
- Improved image processing speed by **50%** with OpenCV implementation, including tasks such as resizing and thresholding.
- Installed the trained ML model on the slave devices to effectively predict on offloaded image parts in image processing pipeline.

**Mobile Application to classify handwritten images of digits**

Oct 2022

*Utilized – Java, XML, Python, Flask*

- Utilized OkHttp library to manage network requests, ensuring efficient data transfer.
- Developed a CNN framework using Keras and TensorFlow libraries with the MNIST dataset to achieve **0.97** F1 score.
- Implemented a RESTful API to handle image classification requests from the mobile application and respond with results in real-time.

**Weather Application**

Jan 2022

*Utilized – JavaScript, HTML, CSS, OpenWeatherMap API, Node.js*

- Implemented real-time weather data retrieval from APIs with fast response time (**less than 1 sec**).
- Developed Node.js server for real-time weather data retrieval, utilizing Express, HTTPS, and body-parser frameworks.
- Designed an interactive UI utilizing CSS frameworks like Bootstrap and Foundation.

**Building a Spam Filter using Naïve Bayes**

Sep 2021

*Utilized – Python, Pandas, NumPy, Sklearn*

- Built a vocabulary accounting for case sensitivity and observed the word occurrences in every message.
- Classified messages achieved a True Positivity Rate of **0.988** on the validation dataset.

**Product Price Comparison**

July 2019

*Utilized – JavaScript, HTML, CSS, Microsoft SQL Server, C#*

- Developed a product price comparison platform, with a database of over **10,000** products from 5 online retailers.
- Implemented web scraping to gather real-time product pricing data with less than **2%** average discrepancy.
- Utilized Map API to return location of nearest product owner(s) in under 20 miles based on zip-code provided.

## TECHNICAL SKILLS

**Programming Languages:** Python, Java, JavaScript, SQL, HTML, CSS, C#, PySpark

**Frameworks:** Dotnet, Express, Flask, NodeJS, Bootstrap, jQuery, FastAPI, ReactJS