102, Calhoun Street, Apt 221
Clemson, SC 29631
Portfolio

Adithya Ravi

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Education

Clemson University, Clemson, SC **Jan 2022 – Dec 2023 (Expected)**

- **Master of Science in Computer Science, GPA: 3.74**
- Graduate Coursework: Database Management System, Machine Learning: Implementation and Evaluation, Statistical Methods 1, Data Analysis, Software Design, Cloud Computing Architecture, Distributed Denial of Services, Applied Data Science, Computing and Online Relationships

Anna University, Chennai, India **Aug 2017 – May 2021**

- **Bachelor of Engineering in Computer Science and Engineering, GPA: 8.08**

Experience

Web Developer Intern, CFT Ventures Private Limited, India **Mar 2020 – Sep 2020**

- Developed front-end web applications using WordPress, utilizing HTML, CSS, and JavaScript to create responsive and visually appealing web pages.
- Created and maintained technical documents for content marketing services using the OptinMonster plugin, which included documenting technical procedures, standards, and guidelines to ensure consistency and quality of the content.
- Designed and implemented web components using existing ASTRA designs templates, working closely with the design team to ensure that the final product meets the required specifications.
- Worked with a team of 4 interns and used the AdvancedCSSEditor plugin to improve readability of the website, making it easier for users to navigate and find information.
- Maintained a document that guides the website's architecture, detailing the various components of the website and their interactions. This documentation reduced the complexities of the website by 20%, making it easier to maintain and update.

Student Trainee, Barola Technologies, India **Dec 2019**

- Developed and executed programs in Objected C, resulting in improved functionality of current systems by 20%.
- Analyzed code on Arduino Uno board to identify areas for improvement, leading to a 15% decrease in system errors.

Languages and Technologies

- Python, C++, C, HTML, CSS, JavaScript, SQL, Java
- NumPy, Pandas, Keras, Tensorflow, Matplotlib, Seaborn, SciKit, Power BI, Bash, Git, Linux, VSCode

Technical Experience

Academic Projects

- **Rating predictions from reviews given to products in online markets:**
  (Technologies Used: Python, Libraries: NumPy, Pandas, SciKit, Seaborn, Matplotlib, TensorFlow, NLTK, TQDM, OpenAI API)
  Created four models to categorise reviews on popular e-commerce websites according to whether they are seller-related, marketplace-related, shipment-related, or product-related and then predict their rating. A CNN, RNN/LSTM, BERT, and SVM with and without splitting were among the models. With a 40.99% overall accuracy and accuracy rates of 34.12% for product-related reviews, 41.77% for delivery-related reviews, 44.70% for seller-related reviews, and 43.36% for marketplace-related reviews, the SVM model without splitting had the highest accuracy.
- **Trail of Terror:**
  (Technologies Used: Python, Libraries: turtle)
  Used Python to create a fun, interactive game with a simple GUI, enhancing game functionality with both the Singleton and Factory Creational design patterns. Implementing unique game features and ideas increased user engagement by 40%, resulting in an average playtime of 30 minutes each session.
- **Heart attack prediction using Multi-Layer Perceptron model:**
  (Technologies Used: Python, Libraries: NumPy, Pandas, SciKit, Seaborn, Matplotlib, TensorFlow)
  Developed a robust multi layer perceptron model with 6 hidden layers to train the model utilizing a dataset downloaded from Kaggle, resulting in a 88% accurate prediction on the test dataset. Implemented data preprocessing techniques such as normalization and feature scaling to improve training accuracy by 15% and reduce overfitting of the model.
- **Online Aid For Detecting Brain Tumor And Tuberculosis Using Deep Learning:**
  (B.E. Capstone Project, Technologies Used: Python, HTML, CSS, JavaScript)
  Developed and implemented an innovative front-end layout for a web application that allowed doctors/users to upload X-ray and MRI data. Convolutional neural networks ResNet and MobileNetV2 were implemented with up to 99% accuracy to detect brain tumours and tuberculosis from user's X-ray/MRI data, decreasing the requirement for intrusive testing procedures by over 50%. The ResNet and MobileNetV2 models' metrics for performance improved by 5% as a result of the team's collaboration to optimise the techniques utilized in the models.

Courses and Additional Experience

- Completed online courses in Power BI, IoT, Arduino programming and Python data structures certified by top universities such as UC Irvine and University of Michigan.
- Volunteer Lead with Bhumi NGO, coordinating three special events for orphan kids and managing facilities to serve program needs while efficiently coordinating food and clothing donations for disadvantaged individuals.