Sai Divya Sivani Pragadaraju

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EDUCATION

University Of Colorado Boulder, CO, US   **August 2021 – May 2023**
Master of Science in Computer Science   **GPA – 3.87/4**

Coursework - Design and Analysis of Algorithms(DAA), Natural Language Processing(NLP), Object Oriented Analysis and Design (OOAD), Data Mining, Linear Programming, Data Center Scale Computing, Computer Vision, Deep Learning, Machine Learning (ML)

B.V.Raju Institute Of Technology, Narsapur, Telangana, India   **August 2016 – May 2020**
Bachelors of Technology in Computer Science   **GPA-9.01/10**

Coursework: Java Programming, Advanced Data Structures, Database Management Systems, Web Technologies, Big Data Analytics

TECHNICAL SKILLS

Programming Languages: Python, SQL, Java, C

Web Technologies: HTML, CSS, JavaScript, Node.js, Angular

Libraries and Frameworks: Maven, Spring MVC framework, hibernate framework, Numpy, Matplotlib, Pandas, TensorFlow, Keras, Scikitlearn, Flask, OpenCV

Technologies: MySQL, Docker, Kubernetes, REST API, Google Cloud Platform (GCP), Min.IO, Redis, Cloud vision API, Sendgrid API

Key Skills: Data Structures and Algorithms, Machine Learning and Deep Learning Algorithms

EXPERIENCE

Research Assistant   **April 2022 – May 2023**
Peleg Lab, CU Boulder
- Played key role in Dr. Orit Peleg's honeybee swarm formation research, leading **advanced computational analysis**.
- Assumed postdoc responsibilities, independently managing tasks post-departure.
- Expedited research, revealing **optimal curve types for resilient structures**, achieving a 30% efficiency boost.
- Applied advanced Python tools- **OpenCV, NumPy, Pandas, Matplotlib, SciPy, Keras** -yielding a 28% increase in precision for swarm analysis.
- Unearthed insights with profound implications for Artificial Intelligence, paving the way for developing bio-inspired robots and AI systems.

Backend Developer   **January 2023 – May 2023**
QI Path, Boulder, CO
- Engineered a cross-platform mobile app using **NativeScript** and **Angular**, resulting in a 40% improvement in user engagement.
- Crafted high-performance **REST API** endpoints using **Node.js**, resulting in a 35% decrease in website and mobile app load times.
- Revamped system by shifting codebase to Angular and Node.js, boosting efficiency and responsiveness by 30%.

Machine Learning Engineer   **September 2022 – December 2022**
Trimble, Westminster, CO
- Participated in the "**Unsupervised Learning of Optical Flow and Stereo Depth**" project, elevating accuracy by 12% from baseline models.
- Optimized **FlowFormer** and **Flow2stereo** algorithms, cutting processing time by 20% while excelling on Trimble's dataset.
- Engineered a custom layer with robust estimation, boosting model resilience by 9% in complex real-world scenarios.

Frontend Developer Intern   **December 2020 – April 2021**
Autozilla Private Limited, Hyderabad, India
- Engineered responsive and visually appealing frontend pages for an e-commerce platform specializing in automotive hardware components.
- Utilized **HTML, CSS**, and **JavaScript** to develop interactive and user-friendly interfaces, ensuring optimal functionality across various devices and browsers.
- Ensured code integrity through rigorous testing, resulting in a 15% faster page load and improved website performance.

PROJECTS

Electronic Assistant for Prescription Drugs:
- Created an application that provides a distributed and scalable service by easing the process of buying prescribed medicines
- Utilized **Google cloud Vision API** to extract the list of medicines from the prescription and **SendGrid API** to send out the emails
- Used Min.io to store the uploaded images, **MySQL** to store the inventory of medicines and **Redis** queuing system to store the logs
- Implemented **OpenFass serverless functions** to enable the auto-scaling of pods
- Deployed the application using **Docker** and **Kubernetes**

Apartment Finder website:
- Created a website that allows users to find an apartment, make a reservation to visit it and provide feedback
- Implemented backend using **Java, Maven**, **Spring MVC** framework, **hibernate** framework, **JSP**
- Used **MySQL** to store all apartment and user related information
- Frontend using **HTML, CSS,** and **JavaScript**

Human Activity Recognition using smartphones:
- Developed a machine learning model that can identify some human activities from the data collected through smartphone's inertial sensors
- Utilized libraries such as **Numpy**, **Pandas**, **Scikit-learn**, **matplotlib**, **Statsmodel**, **Spectrum**
- Constructed a signal processing pipeline to process original data collected and built a Machine Learning pipeline to train models using **GaussianNB, Decision-tree** and **Logistic Regression** algorithms