Sai Krishna Uddagiri

uddagirisai@outlook.com | (248) 525 – 7025 | linkedin.com/in/sai-krishna-uddagiri | GC EAD

Professional Summary

Passionate Software Developer with over 6 years of experience in Python, with a strong background in Artificial Intelligence, including Computer Vision, Deep learning and Natural Language Processing, along with extensive experience in Data analysis, Software and framework development.

Professional Experience

Engineer II, BETA CAE Systems USA, Cadence Inc.

January 2023 – Present, Farmington Hills, Michigan

- Provided integration and cross-platform solutions to customers in research and development to solve engineer problems applied to research needs, requirements and internal innovation projects.
- Maintained code quality and ensured compliance with BETA CAE standards by initiating continuous integration and development workflows in GitLab, resulting in a 100% increase in code quality and maintainability.
- Collaborated with multiple teams to integrate artificial intelligence extensibility into ANSA software using regression and classification models, reducing user workload by 50%.
- Maintained and integrated new features into the company's website, resulting in increased traffic and improved user experience.
- Worked in an agile development environment responsible for developing, debugging, testing and troubleshooting the applications developed in Python.

Software Engineer – Infrastructure (Storage Validation), META (formerly Facebook)

September 2021 – January 2023, Austin, Texas

- Worked at the infrastructure level at data centers creating automation software and frameworks to test and validate errors in data servers.
- Integrated remedial automation workflows into custom operating systems, achieving less than 0.5% downtime for servers in the Metaverse and ensuring efficient operation resulting in generating average quarterly profits of approximately $6 million across multiple types of data servers.
- Developed commercial-grade Python automation testing workflows with 100% test coverage, utilizing Mercurial for version control.
- Created advanced dashboards for viewing and analyzing statistics using UniDash, with extensive hands-on experience in executing SQL queries with DiaQuery to identify areas requiring improvement.
- Worked in Release to Production team while being closely involved with Product owners, engineers and New Product Integration team.

Software Automation Intern, BETA CAE Systems USA

March 2021 – September 2021, Farmington Hills, Michigan

- Developed scripts to automate tasks in ANSA preprocessor and META post-processor software for Finite Element Analysis.
- Assisted researchers and engineers by reducing work effort by up to 100% in analyzing dynamics, metrics, and design of physical models.
- Participated in the full project lifecycle, including design, development, deployment, testing, implementation, and support using Python programming.
- Collaborated with customers to develop application-based extensions tailored to their requirements in ANSA and META software.

Education

Master of Science in Information Studies (August 2024 – Present)
Campbellsville University, Louisville, Kentucky

Master of Science in Computer Science (Jan 2020 – May 2021)
University of North Carolina at Charlotte, North Carolina
GPA: 3.8/4.0

Academic Experience

- **Crowd Counting using Computer Vision** **December 2020**
  Created a density map CNN based neural network and trained it using JHU++ crowd dataset to estimate the number of people in a crowd and achieved an RMSE of 75.6. Model developed in Python using OpenCV, PyTorch and NumPy.
- **Autonomous Driving: ALVINN – An Autonomous Land Vehicle in a Neural Network** **November 2020**
  Created and trained a neural network to autonomously steer a car using the ALVINN approach by Dean Pomerleau in Python, employing a classification approach to solve a regression problem with the Log Loss function and binning steering angles, achieving a 2.35 RMSE.
- **COVID-19 Cases Forecast: Time Series Analysis** **June 2020**
  Used historical data from a 6-month period to develop an ARIMA model for time series analysis and forecasting new cases, implemented in Python using Scikit-learn.
- **Study of Supervised Machine Learning Algorithms** **June 2020**
  Presented a paper at UNC Charlotte School of Computing illustrating supervised machine learning classification algorithms such as K-Nearest Neighbor, Naïve Bayes, and Logistic Regression, and studied their applications in healthcare diagnostics, fraud detection, image classification, speech recognition, handwriting recognition, spam detection, and bioinformatics.
- **Natural Language Processing** **April 2020**
  Presented a paper at UNC Charlotte School of Computing and discussed the ideas acquired from the study of natural language processing, the stages involved in NLP for building a system, and the architecture of NLP.
- **Image Processing and Machine Learning for Precision Viticulture** **January 2019**
  Presented a paper at JNTU Hyderabad and developed a model that predicted a species of grape among 6 different species using image processing on dataset containing grape images. The model is developed in Python using TensorFlow framework.
- **Medical Image Processing using Deep Learning** **October 2018**
  Presented a paper at JNTU Hyderabad and developed a model using Convolutional Neural Networks in Python to identify and detect disease occurrence based on medical images from a scanned photos dataset.