

Sai Jeevan Puchakayala

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📄 github.com/SaiJeevanPuchakayala 📄 saijeevanpuchakayala.github.io

👤 PROFILE

I'm a high-performing, goal-oriented, and data-driven individual who is determined and ambitious about learning new technologies to build things that end up living on the internet and rely heavily on statistical rigour to support decisions and hypotheses. Having a penchant for Data Science and Python Development, much of my career over the past 3 years has revolved around developing and building data-driven products that help businesses to improve.

🎓 EDUCATION

Bachelors of Technology in Electrical and Computer Eng. 07/2019 – Present | Kollam, India

Amrita Vishwa Vidyapeetham [🔗](#)

CGPA: 8.4

Board of Intermediate Education 05/2019 | Khammam, India

Sri Chaitanya Jr. College

CGPA: 9.3

Board of Secondary Education 05/2017 | Khammam, India

Gorkey Public School

CGPA: 10.0

👛 PROFESSIONAL EXPERIENCE

AI/ML Curriculum Developer 01/2023 – present | India

Sustainable Living Lab (SL2) - Internship [🔗](#)

An innovation projects facilitator that addresses the needs of the 3P (Public, Private & People) sector in Asia.

Key Responsibilities:

- Developing technology use cases of AI/ML in different industries, including healthcare, finance, manufacturing, agriculture, logistics, and transportation.
- Effectively building, developing, and documenting Data Centric AI/ML models for students with transparency and explainability.
- Collaborating with reputed university faculty and subject matter experts to continuously enhance and modify the curriculum covering AI, ML, Data Science, IoT, and Python programming for the non-technical global youth audience.

Python Developer 06/2022 – 11/2022 | Gurgaon, India

RedCarpetUp - Internship [🔗](#)

A Y Combinator 2015 startup trying to disrupt lending and credit in India.

Accomplished goals:

- Modelled a robust backend system that could handle high traffic volumes using FastAPI/PostgreSQL/Redis architecture for optimal performance and scalability.
- Developed mobile/web-based APIs on Flask/FastAPI that are highly performant and secure by implementing best practices for API design, such as using JWT tokens for authentication and rate-limiting API requests to prevent abuse.
- Leveraged various SDKs, including AWS, Google ML, Firebase, and OCR, to enforce Computer Vision and Natural Language Processing (NLP) APIs across the platform with 1 million users in enhancing the eKYC user experience and increasing the accuracy of data-centric AI models.
- Collaborated with distinguished developers to improve code quality and efficiency.

Python Developer 05/2021 – 12/2021 | New Delhi, India

Paprrclip - Internship [🔗](#)

A financial content discovery platform enables retail traders and investors to make smarter investment decisions.

Accomplished goals:

- Developed a user trigger-based caching architecture with high availability, low latency, and a performant backend system that could handle a large amount of data and user requests using Flask, MongoDB, Docker, Redis, and Amazon Web Services (AWS).
- Excelled in bypassing web securities and captcha-based web security frameworks to scrape valuable stock market observations.

- Extracted valuable insights by utilising Responsible AI systems to enhance and derive the technical analysis of stocks in real-time along with data-driven statistical calculations.

Summer Student

07/2021 | Hungary, Europe

EEML [↗](#)

The Eastern European Machine Learning (EEML) summer school is a European summer school that comprises lectures and research talks on the core topics of AI and ML which includes Bayesian Learning, the Theory of Machine Learning, and Generative Models. The summer school also constitutes comprehensive lectures and practical sessions from researchers at Google, Nvidia, DeepMind, Facebook, Massachusetts Institute of Technology, and McGill University.

Student Member

01/2021 – 02/2021 | Kollam, India

Robotics Club Amritapuri [↗](#)

A club from the EEE Dept of Amrita School of Engineering that makes students ready for the robotics industry by giving training and exposure towards prototype designing, computer-aided drafting, and motion planning.

♥ AREAS OF INTEREST

Data Science, Machine Learning, Computer Vision, Big Data Analytics, REST APIs, Web Scraping, Automation, DevOps, and Web Development.

🧠 SKILLS

Languages: Python, R, JavaScript, and C.

Frameworks: Flask, NodeJS, Express, and Django.

Cloud Infrastructure: Heroku, and AWS (CodeDeploy Suite and SageMaker).

Database: PostgreSQL, MySQL, MongoDB, and Redis (Caching).

Tools & Technologies: VSCode, Postman, JupyterLab, Orange 3, GitHub, Docker, Streamlit, Sentry, and Asana.

Operating Systems: macOS, Linux, and Windows.

Web: HTML5, CSS3, and Bootstrap.

Libraries: Pandas, NumPy, Matplotlib, Scikit-learn, Tensorflow, OpenCV, Keras, Selenium, and BeautifulSoup.

📄 PUBLICATIONS

Machine Learning-Based Crop Prediction: A Way Towards Smart Farming [↗](#)

11/2022

IEEE

A research project that resulted in a research paper that was presented at the International Conference on Parallel, Distributed, and Grid Computing 2022 [↗](#). Which proposed a crop recommendation system built using an ensemble learning algorithm named xgboost which outperformed other algorithms with an accuracy of 99.318%. The paper is scheduled to be published soon in IEEE Xplore. [↗](#)

📁 PROJECTS

Sign Language Sentencer [↗](#)

A Deep Learning(CNN) based application that can recognize American Sign Language and convert signs into the English alphabet. This application is equipped with a Tkinter GUI on which the English alphabet and even the words and sentences formed using the real-time recognized signs are displayed with continuous sign recognition with an accuracy of 99%.

Cryptocurrency Screener [↗](#)

A web app created to have a glance over the real-time trends of cryptocurrency, and this will simplify things for cryptocurrency enthusiasts. This Screener is equipped with a curated Real-time Price Screener, Stats Table, and top News Viewer from various sources in a simple, focused format.

StealthSolver

StealthSolver is a state-of-the-art captcha solver that uses a deep learning-based algorithm to accurately crack even the most complex captchas with 99% accuracy. Its advanced neural network architecture is trained on a massive dataset of diverse captcha images, enabling it to identify patterns and shapes with unparalleled precision.

Diabetes Risk Calculator

An End-to-End Data Science project which can predict whether a person has diabetes, or not, based on information about the patient such as blood pressure, body mass index (BMI), age, etc. with an accuracy of 98.25%.

CERTIFICATES

Data Science in Python ((Aug 2020) issued by DataCamp.)

Neural Networks and Deep Learning ((Jul 2020) issued by Coursera.)

HTML, CSS and Javascript for Web Developers ((May 2020) issued by Coursera.)

Programming for Everybody (Python) ((Apr 2020) issued by Coursera.)

VOLUNTEER WORK

Awareness on Career Guidance and Emerging Technologies for Secondary School students - 2021

I was one of the volunteers team of 5 people who delivered a seminar on Career Guidance and Emerging Technologies to create awareness for Secondary School students of a government school located in the countryside of a district in the Telangana state of India. This work is done as a part of the Student Social Responsibility project program of Amrita Vishwa Vidyapeetham.

Demonstrating Safety against COVID-19 - 2020

I was one of the volunteers who helped in demonstrating and promoting safety against COVID-19, which included promoting best practices for prevention of Corona viral Disease as specified by the World Health Organization(WHO).

Crowd management team during AmritaVarsham - 2019

I was one of the volunteers who helped in crowd management during Amritavarsham Amma's (Mata Amritanandamayi Devi (popularly known as "Amma")) birthday celebrations.

LANGUAGES

English (Listening, Reading, Writing, and Speaking)

Telugu (Listening, Reading, Writing, and Speaking)