

Rahul Pavithran

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Summary

Curiosity-driven Software Engineer with 3+ years of professional experience in E2E development and maintenance of reliant software systems. Experienced in Python and JavaScript full-stack development on AWS and Azure with strong Machine Learning foundations. Multi-recipient of performance awards for successful project deliveries through cross-functional collaboration in Agile environments with a Generalist mindset.

Skills

Programming Languages: Python, JavaScript, TypeScript, HTML & CSS, Golang, Rust, SQL, Solidity, C#

Databases: SQL / RDBMS - PostgreSQL, MySQL | NoSQL – MongoDB, AirTable

Frameworks & Libraries: Flask, CKAN, SQLAlchemy, boto3 (AWS), NumPy, Pandas, Matplotlib, Scikit-Learn, PyTorch, Angular, React, Express.js, Node.js, Web3.js, sequelize ORM, Bootstrap, ASP.NET

OS & Cloud: Linux, Docker, Kubernetes, Helm | AWS - S3, Lambda, API Gateway, Elastic Beanstalk, Cloudfront | Azure - Datalake, AKS, AD

Tools: CI/CD - GitHub Actions, Azure DevOps | Version Control - GitHub, Gitlab, Bitbucket | Jira | Confluence

Experience

NJIT Ying Wu College of Computing

Jan 2024 – May 2024

Graduate Tutor, Algorithms and Machine Learning

Newark, NJ, USA

- Selected as one of five tutors college-wide to aid students in Data Structures, Algorithms, and Machine Learning fundamentals
- Organized and facilitated online and in-person academic guidance sessions on ML strategies, boosting student engagement by 30%

ValueLabs

Jun 2022 – Jan 2023

Senior Software Engineer

Hyderabad, TG, IN

- Enhanced PHP Magento2-based e-commerce platform development for a popular dessert brand via CI/CD pipeline updates and critical full stack optimizations, improving customer checkout rates by 17%
- Developed Flask RESTful APIs and data migration scripts for RFT annotation portal on AWS, automating NLP annotation transfer from AirTable to MongoDB backend, achieving a 28% increase in operational efficiency
- Awards:** ValueLabs Spot Award - Jun 2022

ValueLabs

Jun 2020 – May 2022

Software Engineer

Hyderabad, TG, IN

- Led Python CKAN and Angular based data portal development, collaborating with stakeholders to integrate data sources and geospatial data support, restoring project profitability and client satisfaction
- Optimized Azure Kubernetes deployment with improved cluster organization using redesigned Helm charts, reducing resource costs by 48%
- Engineered regulatory-compliant Solidity smart contracts and scalable Express REST APIs leveraging Web3.js for a Node.js blockchain Security Token Offering (STO) portal hosted on AWS Elastic Beanstalk, enhancing token control accessibility
- Pioneered Python-based OCR solutions for Swedish document processing, incorporating Tesseract with fine-tuned LSTM backend, resulting in a 22% reduction in document digitization expenditure
- Awards:** ValueLabs Star of the Month - Mar 2022 | Superstar of the Quarter - Jan 2022, Dec 2020

ValueLabs

Dec 2019 – Mar 2020

Intern

Hyderabad, TG, IN

- Created an ASP.NET-based e-commerce web application, incorporating jQuery AJAX, KnockoutJS and Entity framework to facilitate server-side Pagination, achieving fast and dynamic store list retrieval and rendering
- Produced production-ready unit tests for ASP.NET MVC project go-live features utilizing xUnit framework, boosting test coverage by 5%

SmartBridge

Mar 2019 – Jun 2019

Machine Learning Engineer - Intern

Hyderabad, TG, IN

- Mentored over 150 students in Exploratory Data Analysis, Data Visualization and Machine Learning, employing industry-standard Python libraries such as NumPy, Pandas, Matplotlib and Scikit-learn

Projects

LSTM-based Time-Series Modelling for SEP Event Prediction | Python, NumPy, Pandas, Matplotlib, Scikit-learn, PyTorch, Jupyter

- Formulated ETL workflow and LSTM based neural networks in PyTorch to predict solar particle events from sequential GOES satellite data, while minimizing impact of heavy class imbalance
- Crafted mlinstruct Python module to manage ML model training instances and evaluation plot generation with workflow features including early stopping and model checkpoints, reducing project asset management and execution efforts by 58%

Real-time Traffic Detection | Python, NumPy, Matplotlib, PyTorch, Jupyter | [IEEE](#)

- Designed and implemented deep learning models for object detection based on YOLOv5 and YOLOv8 architectures for complex traffic detection, achieving >80% detection accuracy under diverse environmental conditions

Education

Master of Science, Computer Science

Jan 2023 – May 2024

New Jersey Institute of Technology (GPA: 4.00 / 4.00)

Newark, NJ, USA

- Relevant Coursework:** Data Structures and Algorithms | Database Management System Design | Image Processing and Analysis | Machine Learning | Artificial Intelligence | Internet and Higher-Layer Protocols | Operating System Design | Cloud Computing | Applied Statistics

Bachelor of Technology, Computer Science and Engineering

Aug 2016 – Jun 2020

Anurag Group of Institutions (CGPA: 9.46 / 10.00)

Hyderabad, TG, IN