

# J Pavan Prasad

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## EDUCATION

### Prince Matriculation and Higher Secondary School

Chennai, Tamil Nadu

Secondary School Leaving Certificate (SSLC) **Score: 458/500**

2018 – 2019

Higher Secondary Certificate (HSC) **Score: 548.51/600**

2020 – 2021

### Sathyabama Institute of Science and Technology

Chennai, Tamil Nadu

B.E. Computer Science Engineering with specialization in AI/ML **GPA: 8.6/10**

Jun 2021 – Mar 2025

## SKILLS

**Languages:** Python, Java, HTML, CSS, JavaScript, R, C++ for microcontrollers

**Technologies:** MySQL, MongoDB, Git and Github, AWS, Flask, Langchain, Huggingface, sci-kit learn, pandas, Linux, NumPy

**Areas of interests:** GenAI, DevOps, Web Development

## EXPERIENCE

### Verizon Cloud Platform Job Simulation

Forage

Virtual Experience Program

October 2024

- Completed a job simulation involving building a hypothetical new VPN product for Verizon's Cloud Computing team.
- Used command line Python to test whether Verizon's VPN met the cloud-native traits, i.e. redundancy, resiliency and least-privilege.
- Researched approaches to achieve application security and communicated insights in a PowerPoint Presentation.

## PROJECTS

### Smart Recruiting Platform

- Developed a Smart Recruiting Platform using the MERN stack (MongoDB, Express.js, React, Node.js) to enhance recruitment processes.
- Leveraged Generative AI to match job descriptions with user profiles, ranking candidates based on their fit for available roles.
- Implemented an automated job description generation feature that creates tailored job postings based on user prompts, significantly reducing time spent on recruitment tasks.

### Scalable Web Platform on AWS

- Engineered a highly available web application by deploying an Nginx web server on AWS EC2 instances.
- Implemented AWS Auto Scaling to automatically adjust the number of instances based on traffic demands, ensuring optimal resource utilization.
- Configured an Application Load Balancer to efficiently distribute incoming traffic across multiple instances, improving reliability and fault tolerance.
- Set up CloudWatch monitoring to track key metrics and trigger scaling actions.

### Sewers Safety System

- Developed a comprehensive safety monitoring device for sewer and septic tank cleaning operations, integrating gas detection and health monitoring capabilities.
- Implemented a MAX30102 pulse oximeter sensor to continuously monitor cleaners' oxygen saturation and heart rate, alerting through GSM when levels fall below safe thresholds.
- Incorporated gas sensors to detect hazardous atmospheres, with real-time alerts to supervisors, addressing the critical issue of fatal accidents in manual sewer cleaning.

## CERTIFICATIONS AND COURSES

Programming, Data Structures and Algorithms using Python

(IIT Madras)

DevOps and Automation

Linux Command-Line Shell Scripting for Absolute Beginners

(Udemy)

Applied Generative AI and Natural Language Processing

(Udemy)