

SHANTANU PATNAIK

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LINKS

Github

LinkedIn

Stackoverflow

SKILLS

AWS

Prompt Engineering, OpenAI, Llama

Full Stack Web Development

REST API, GraphQL, Microservices

IOT, Industry/Home Automation

Web Automation, Scraping (+ Social Media)

CDN, CI/CD with AWS

NewRelic, SRE

FRAMEWORKS/TOOLS

- Docker, Git, Linux, Bash, Nginx
- GraphQL, REST
- MERN, LAMP
- React Native, Nextjs, Socket.io
- Microsoft VS Code, VIM
- Arduino, ESP8266, NodeMCU
- JEST, Mocha-Chai, Jmeter
- Mongoose, Postman, JWT
- RabbitMQ, SQS
- Twilio

DATABASE

- MySQL, SQLite
- PostgreSQL, Supabase
- MongoDB
- Neo4J
- Firebase

EDUCATION

AMITY UNIVERSITY, JAIPUR

**B.TECH IN COMPUTER SCIENCE AND
ENGINEERING**

June 2017 - May 2021 | Jaipur, India

PROJECTS

AI Voice Assistant | GITHUB

Feb 2024 | Node JS, Twilio, Google Dialogflow, NLP

Tars Prime | Tars

Feb 2023 | Node JS, Python FastAPI, OpenAI

Whatsapp Automation | GITHUB

Jan 2021 | Python, Selenium, Tkinter, SQLite

Paytm Balance Notifier | GITHUB

Jan 2021 | Python, Pyttsx3, Selenium, Web Scraping

Alexa Skill For Home Automation

| GITHUB, SM Enterprises

Jan 2021 | Python, AWS Lambda, ASK, REST API

Program Automation Tool

| GITHUB, SM Enterprises

Aug 2020 | Python, File Handling

Emergency Boot Up System | SM Enterprises

Jun 2020 | Arduino IDE, Arduino

INTERNSHIPS

ONGC | Intern in Networking and Communications

June 2019 - July 2019

- ➔ Learned working of ONGC's InfoComm station
- ➔ Developed HRMS application with Server-Client integration using C++ and Java for employee management and server establishment. Github

SM Enterprise | Intern in Industry Automation

June 2020- September 2020

- ➔ Development in the microcontroller and the embedded circuit for making an IOT device
- ➔ Developed the web application (Full Stack) and REST API for controlling the device from anywhere in the world.
- ➔ Integrated Long Polling and Email Verification
- ➔ Domain registration with server and email hosting
- ➔ Making the web app PWA compatible.
- ➔ Integrated Amazon Alexa with the device for LAN operations and used Alexa Skills Kit and AWS Lambda for WAN operations.

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EXPERIENCE

1. Tars

| Full Stack Engineer | Product DevOps Engineer

March 2021 - August 2021 (Intern) +

September 2021 - September 2023 (Full Time)

- Working in the MERN stack, Python, AWS services and Monitoring Tools.
- Developed test cases and test suites for primary backend services using Mocha-Chai.
- Led the development and scaling of WhatsApp services at Tars, overseeing new features, integrations, and billing.
- Spearheaded the integration of the SMS channel for Tars chatbots with Twilio, **completing the project within two days to secure a customer.**
- Managed the integration of the Monday.com dashboard with the Tars WhatsApp chatbot under a tight deadline, **successfully closing a high-value customer deal.**
- Spearheaded process improvements as interim Team Lead within the engineering team.
- Developed and submitted SLA documents for enterprise accounts.
- Implemented New Relic for comprehensive infrastructure and application monitoring, including log forwarding and anomaly alerts.
- Provided DevOps support, including the setup and launch of new servers, ALBs, and reverse proxies, along with managing DB servers and debugging system issues..
- Worked on **Tars-Vodafone Qatar FIFA 2022** project where took responsibility for the backend and DevOps aspects and ensured the successful completion of the project.
- Worked on AWS Security hub to implement the security remedies throughout the cloud infrastructure **which enabled the team to initiate partnership talks with AWS.**
- Successfully completed the first version of Tars Prime with the team where the initial integration AI tools and services within the product took place

2. Brandie

| Senior Backend Engineer | Lead Backend Engineer

April 2024 - Current

- Leading projects in Backend, AI, DevOps and System Design.
- Developed a system to scrape statistics from a popular social media site, utilizing proxy services to populate a graph database with crucial data points at scale.
- Architected and implemented complete monitoring and logging for the backend system which helped in **preventing 100% increase in Infra cost** by catching the pain points in the system.
- Architected and implemented a novel backend system featuring Internal Load Balancing and Caching, **leading to a 10x surge in New Relic Apdex score and a 50% reduction in overall backend response time.**
- Developed and deployed Brandie AI, an Agentic AI system **handling 7,000 daily invocations.** My role involved data pipeline creation, prompt engineering, vector database integration, and workflow establishment for tech support, Q&A, and statistical queries.
- Developed additional features for the Brandie AI System, including autonomous campaign creation, caption generation, and curated post capabilities, utilized by both users and administrators, **collectively achieving over 1 million engagements.**
- Formulated and executed a database migration strategy that **averted a 300% surge in database expenses** and significantly enhanced system-wide query performance.
- Directed infrastructure enhancements for media asset delivery services, **leading to a 50% reduction in operational costs** while accommodating significant growth in user engagement and an expanding user base.