

Rutuja Mandapmalvi

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Summary

Software Engineer — Computer Engineering Master's student at the **University of Washington** with **2+ years** of industry experience at **Accenture** and **Persistent Systems Limited** in scalable full-stack development, REST APIs, and ML applications. Proven success in Agile teams at Accenture and Persistent Systems. Proficient in Python, JavaScript, AWS, and modern frameworks like React and Node.js. Strong foundation in algorithms, OOP, and deploying production-ready systems.

Education

University of Washington, Seattle, WA

M.S. in Electrical and Computer Engineering

GPA: 3.85

Expected August 2026

Relevant Coursework: TinyML, Advanced Data Structures, Machine Learning, Database Systems

University of Pune, India

B.E. in Computer Engineering

GPA: 3.6

April 2022

Relevant Coursework: Software Testing, Cloud Computing, Project Management

Technical Skills

- **Languages:** Python, JavaScript, SQL
- **Frameworks/Libraries:** React, Next.js, Node.js, Express.js, TensorFlow, Keras, PyTorch, scikit-learn, Pandas, NumPy
- **Cloud/DevOps:** AWS (EC2, S3, Lambda, IAM), Jenkins, GitHub Actions
- **Tools:** Postman, JIRA, Git, OpenAI API, IBM AppConnect
- **Practices:** Agile (Scrum), CI/CD, Unit Testing, REST API Integration

Professional Experience

Accenture

Packaged App Development Analyst

May 2024 – Sep 2024

- Developed and deployed 5+ RESTful APIs using Node.js and Express for a sustainability-focused platform.
- Refactored legacy code into microservices, improving deployment speed and code maintainability by 40%.
- Authored onboarding documentation that reduced developer ramp-up time by 30%.

Persistent Systems Limited

Software Engineer

Jan 2022 – Mar 2024

- Integrated APIs with IBM AppConnect for real-time data synchronization across platforms.
- Built CI/CD pipelines using Jenkins and GitHub Actions, increasing deployment frequency by 50%.
- Achieved 90%+ unit test coverage, reducing production defects by 30%.
- Led collaboration with PMs and design teams to deliver user-aligned solutions.
- Refactored legacy ReactJS app, improving processing time by 25%.

Projects

Roadmap Generator Using LLMs

- Designing a personalized learning path generator using LLMs, Puppeteer for scraping, and Python for processing.
- Building a modular backend and an interactive frontend to display AI-curated roadmaps.

HearMe – Real-Time Emotion Classification from Audio

- Trained a CNN on 300+ audio clips using MFE features to classify five emotional states.
- Deployed the model with Edge Impulse and integrated it into a Streamlit web app for live predictions.

F1GPT – Conversational Chatbot for F1 Fans

- Developed an AI chatbot using LangChain.js, OpenAI API, and Next.js to handle 100+ F1-related queries.
- Built a 5-endpoint Retrieval-Augmented Generation (RAG) pipeline to improve contextual accuracy.

Fine-tuning DeepSeek for NLP Tasks

- Fine-tuned DeepSeek on domain-specific datasets using PyTorch and Hugging Face to enhance language generation.
- Evaluated performance improvements using precision/recall and integrated model into demo application.

Food Calories Estimation using CNN

- Collected and labeled 500+ food images across 15 categories and trained a CNN model to estimate calorie class.
- Achieved high classification accuracy and visualized training curves with matplotlib across 30 epochs.