

Vaishnavi Rai

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EDUCATION

Indiana University Bloomington
Master's In Computer Science

2025
GPA:3.6

SKILLS

Languages: Python, JavaScript, TypeScript, PHP
Frontend: React, React Native (Expo), HTML/CSS, Tailwind, Bootstrap
Backend: Node.js, Express.js, Flask, REST APIs
Cloud & DevOps: AWS (DynamoDB, Lambda basics), Google Cloud (Cloud Functions, Storage), Docker, Kubernetes, CI/CD
Databases: MySQL, PostgreSQL, MongoDB, DynamoDB
Tools: Git/GitHub, Elasticsearch, Kibana, Splunk, AppDynamics, Dynatrace, ServiceNow, Jira, Power BI, Tableau
Libraries: Pandas, NumPy, scikit-learn, Matplotlib, Seaborn
Concepts: Data Structures, Algorithm, System Design (HLD/LLD), Design Patterns

EXPERIENCE

Heartland Community Network

USA

Software Developer

2025 - Present

- Built modular React Native (Expo) components using **JavaScript/TypeScript**, delivering pixel-perfect Figma-matched screens with shared design tokens and reusable UI patterns.
- Developed onboarding, authentication, and profile flows with **React Navigation**, dynamic forms, validation, and clean conditional UI.
- Integrated components with **Node.js/Express APIs**, ensuring reliable data handling, error states, and optimized rendering performance across iOS/Android.

QualityKiosk

India

Site Reliability Engineer

2022 - 2023

- Handled **100GB+ of logs every day**, setting up **automated pipelines in Elasticsearch** that made data more reliable and cut manual work by 60%.
- Built **interactive Kibana dashboards** and worked with server teams to fine-tune queries, which sped up indexing, reduced troubleshooting time by 40%, and helped resolve issues faster.

QualityKiosk

India

Performance Assurance

2021 - 2022

- Led client-specific R&D initiatives using advanced data extraction techniques in **Splunk**, improving system integration efficiency by 30%.
- Resolved critical system issues, reducing downtime by 50% and increasing client satisfaction by 40%, while ensuring technical feasibility across operational features.

PROJECTS

Master Of Jokes

2024

A full-stack joke-sharing platform where users can post, rate, and moderate jokes with secure access control.

- Built the web app using **Flask, SQLAlchemy, HTML/CSS/JavaScript**, enabling user accounts, submissions, ratings, and moderator workflows.
- Designed **HLD/LLD** architecture with **Python decorators, session management, and route guards** to implement fine-grained role-based access.
- Packaged the application using **Docker** and deployed on **Render** for reliable, production-ready hosting.

Multi-Format File Conversion Engine On Google Cloud

2024

A serverless file-processing system that converts documents (PDF, DOCX, etc.) via cloud functions.

- Implemented backend logic using **Flask, Google Cloud Functions, and Cloud Storage** to securely handle uploads, conversions, and signed-URL downloads.
- Developed a user-friendly, responsive frontend using **HTML/CSS** for file upload and format selection.
- Ensured safe file handling with **temporary storage**, unique filenames, and Python-based validations and error handling.

Speech Emotion Recognition

2020

A machine learning model that classifies emotions (happy, sad, angry, neutral) from speech audio recordings.

- Built emotion classifier models using **Python, TensorFlow, and Multilayer Perceptrons (MLPs)**.
- Enhanced audio quality with **noise reduction, MFCC feature extraction**, and data preprocessing techniques.
- Achieved ~85% accuracy across multiple labeled speech datasets.

Public Transit Booking System

2019

A basic booking system that supports route discovery, user accounts, and ticket management.

- Developed responsive web pages using **HTML/CSS and JavaScript**, ensuring clean UI behavior and smooth data flow with **MySQL**.
- Implemented route search, account creation, and booking logic with **SQL queries + JavaScript-driven UI** in a local environment.