

# Rudradeep Banerjee

602-565-3340 • rudradeep1998@gmail.com • linkedin.com/in/rudradeepb • github.com/blacklamma • https://rudradeep-portfolio.vercel.app/

## EDUCATION

### M.S. Computer Engineering

Arizona State University, Tempe, AZ

May 2025

3.8 GPA

**Relevant Coursework:** Data Structures and Algorithms, Data Processing, Machine Learning, Software Security, Information Assurance, Knowledge Representation, Software Design, Data Visualization

### B.Tech Electrical and Electronics Engineering

Vellore Institute of Technology, Vellore, India

May 2019

3.4 GPA

**Relevant Coursework:** Embedded System Design, Microprocessors and Microcontrollers, VLSI Systems and Design, Object Oriented Programming

## TECHNICAL SKILLS

**Programming Languages:** Python, JavaScript, Typescript, SQL, Java, Shell, Swift, Go

**Front-End:** HTML5, CSS3, JS, Angular, React.js, Next.js, AngularJS, TailwindCSS, AngularJS, D3.js

**Backend:** Django, PostgreSQL, Node.js, Express.js, Spring, CI/CD (GitHub Actions), Docker, Kubernetes

**Machine Learning:** CNN, Deep Learning, PyTorch, Transformers, GPT, LangChain, LlamaIndex, RAG pipelines

**Tools, Databases, and OS:** Heroku, Git, GitHub, Windows, MacOS, Linux/Unix

## WORK EXPERIENCE

### Sip, Remote, USA: Web Development Intern

Aug 2025 – present

- Built core features on a Next.js platform, integrating generative AI features to enhance creator engagement.
- Designed LLM-powered creator assistance tools for personalized responses and added reusable UI components with TailwindCSS.
- Collaborated with teammates to refine requirements, integrate Firestore for real-time functionality, and improve overall performance.

### Everest IMS, Bangalore, India: Senior Software Engineer

Jul 2019 – May 2023

- Directed a team of 5 professionals to architect and develop a multi-tiered Django and AngularJS application using PostgreSQL, emphasizing robust application architecture.
- Redesigned key front-end components including the ticket dashboard, reporting interface, and user settings panel using HTML5, CSS3, and JavaScript. This led to a 25% improvement in user retention and ensured consistency across modern web interfaces.
- Optimized backend API performance by streamlining processes, reducing response times by 80%, and elevating overall system performance by 35%, aligning with performance optimization best practices.
- Implemented dynamic content rendering with JavaScript-based animations and libraries, improving page load speeds by 50% and reinforcing effective use of browser internals.
- Worked closely with clients using Figma for prototyping, JIRA for project tracking, and Confluence for documentation to revamp outdated digital workflows. The redesigned workflows improved user satisfaction by 50% and reduced support ticket volume by 20%.
- Earned the Employee of the Quarter honors twice for outstanding contributions in UI/UX development and rapid issue resolution.

## PROJECTS

### Full-Stack E-Commerce Solution with Next.js, Prisma, and TailwindCSS; *Personal Project*

Winter 2024

- Developed the application using Next.js, Prisma, TailwindCSS, daisyUI focusing on responsive design and user-friendly navigation.
- Implemented responsive layouts, user authentication, product search, and a cart functionality to enhance the experience.
- Demo: ecommerce-rudradeep.vercel.app, Repository: github.com/blacklamma/ecommerce

### Semantic Book Recommendation System using LLMs, *Personal Project*

Winter 2024

- Built an LLM-powered book recommendation system using semantic search and a vector database using Python.
- Implemented zero-shot classification and sentiment analysis to categorize books and extract emotional tones, built a UI using Gradio.
- Repository: github.com/blacklamma/book-recommender

### Interactive F1 Data Visualization Web App, *Class Project*

Spring 2025

- Built a responsive scrollytelling web app using D3.js, JavaScript, and HTML/CSS to visualize the evolution of Formula 1 through interactive charts, maps, and timelines.
- Implemented dynamic filtering, smooth animations, and mobile-first design to enhance user engagement and data exploration.
- Demo: f1-through-the-years.vercel.app

### Angular Service Desk Solution, *Personal Project*

Summer 2023

- Developed a service desk application utilizing Angular and Django.
- Implemented features for seamless email to ticket conversion and automatic task scheduling and assignment to technicians.
- Designed a dynamic ticket assignment system to assign tickets based on technician availability, expertise and ticket priority.
- Added a task scheduling system, with slack and google calendar integration for real time notifications.