

PRATHEEK BANAGAR

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OBJECTIVE

Results-driven Software Engineer with over 1+ year of experience in full-stack development. Seeking a role in front-end, back-end, or full-stack development to leverage skills in React.js, Next.js, Java, Spring Boot, and Prisma. Committed to delivering scalable and efficient web applications.

EDUCATION

B.Tech (Electronics and Communication Engineering), Dr. Ambedkar Institute of Technology, Bengaluru (VTU) 2019 - 2024

Relevant Coursework: Data Structures, Algorithms, Web Development, Machine Learning

SKILLS

Programming Languages	Python, Java, C++, JavaScript, HTML, TypeScript, CSS
Frameworks	React.js, Next.js, Spring Boot, Express, Node.js
Tools	Tailwind CSS, Prisma, PyTorch, Fastai, TensorFlow
Methodologies	Agile, RESTful API Development, Transfer Learning, Quantum Machine Learning

EXPERIENCE

Associate Software Engineer Intern 2023 - Present
Exter, Bengaluru

- Developed and maintained web applications using React.js and Next.js, enhancing user experience and performance.
- Built reusable components and front-end libraries, ensuring cross-browser compatibility.
- Collaborated with design teams to create responsive web designs, boosting mobile user engagement.
- Developed back-end solutions using Java and Spring Boot, managing APIs to support front-end functionalities.
- Designed and developed RESTful APIs, managing user authentication, authorization, and data validation using Auth.js.
- Optimized database queries and application performance, reducing response times.
- Integrated external APIs and services to expand application capabilities.
- Managed database operations with Prisma, ensuring efficient data handling.
- Developed and maintained database schemas and migrations with Prisma to ensure data consistency and integrity.
- Automated routine database tasks to minimize downtime and data loss risks.
- Participated in agile methodologies, including sprint planning, daily stand-ups, and retrospectives.
- Conducted code reviews to maintain high-quality code standards and mentored junior team members.

Key Achievements:

- Contributed to migrating a legacy system to a modern web application, enhancing system scalability and maintainability.
- Improved application performance by refactoring critical code sections, resulting in faster load times and better user experience.

Design Intern

2022

Maven Silicon, Bengaluru

- Worked on Advanced Microcontroller Bus Architecture (AMBA) Protocol, Verilog, and SystemVerilog for digital system design and verification.
- Assisted in developing and testing modules for system integration, ensuring compliance with industry standards.
- Designed and verified a RAM module, handling both front-end and back-end design aspects.
- Collaborated with senior engineers to debug and troubleshoot design issues, enhancing problem-solving skills.

Campus Ambassador

2020 - 2021

IIT-Bombay (E-CELL)

- Promoted IIT-Bombay's entrepreneurial initiatives and events on campus, demonstrating leadership and marketing skills.
- Organized workshops and seminars, attracting over 200 participants and enhancing the institute's outreach.
- Built and maintained relationships with faculty and students, fostering a collaborative community.

PROJECTS

DocAssist

2023

Developed an AI application for analyzing medical scans (X-rays, MRIs) using deep learning, aimed at reducing diagnosis time and improving accuracy.

- Utilized PyTorch and Fastai frameworks to create robust image classification models.
- Employed transfer learning with ResNet and EfficientNet architectures, fine-tuning and ensembling models for optimal performance.
- Deployed the solution via a Streamlit web application for real-time inference, aiding doctors in quicker and more accurate diagnosis.

Binary Classification using Quantum Machine Learning

2023

Implemented a binary classification model leveraging quantum machine learning techniques to explore quantum computing's potential in enhancing classification tasks.

- Developed and trained quantum-enhanced models for binary classification problems.
- Evaluated the performance against classical models, demonstrating potential improvements in specific scenarios.
- Experimented with various quantum algorithms and frameworks to optimize the classification process.

Micro ERP System (Administrative Application)

2022

Developed an administrative application using React.js, Next.js, and Prisma, streamlining internal processes and improving efficiency by 20%.

- Designed and implemented user-friendly interfaces and reusable components to enhance user experience.
- Integrated Prisma for efficient database management and operations, ensuring data consistency and integrity.
- Conducted performance optimization and code refactoring to improve application speed and reliability.

Hate Speech Detection using Transformers

2021

Implemented a hate speech detection system using Python and TensorFlow, achieving an 85% accuracy rate.

- Developed and trained transformer-based models for text classification tasks.
- Fine-tuned pre-trained models on custom datasets to improve detection accuracy.
- Deployed the model as an API for real-time hate speech detection in various applications.

Smart Bus-Ticketing System

2020

Built a smart bus-ticketing system with Node.js and Express, reducing ticketing time by 40%.

- Developed server-side logic and RESTful APIs for ticket booking and management.
- Implemented real-time updates and notifications to enhance user experience.
- Ensured secure data transactions and user authentication to maintain privacy and security.

EXTRA-CURRICULAR ACTIVITIES

- Public speaking: Completed workshops in Toastmasters, representing my college in VTU fest as a debate contender.
- Member of the college coding club, participating in hackathons and coding competitions.

LEADERSHIP

- Experience as a Campus Ambassador for IIT-Bombay E-CELL, promoting entrepreneurial activities, organizing events, and engaging with the student community.