Prakashraj Nehrudass

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Education

University of Southern California, United States   **Aug 2023 - May 2025**
Master of Science, Computer Science

Easwari Engineering College, Anna University, India   **Aug 2019 - May 2023**
Bachelor of Engineering, Computer Science & Engineering

Work Experience

Radical AI   **May 2024 – Jul 2024**
Software Engineer   *Remote, Unites States*

- Engineered and maintained a full-stack solution with a robust backend using Python, FastAPI, and PostgreSQL, optimizing API performance and improving query execution speed by 20%. Containerized applications with Docker and managed scaling with Kubernetes, enhancing deployment efficiency, system reliability, and uptime.
- Developed a responsive frontend using ReactJS, HTML, CSS, and Tailwind, improving user interaction by 10%. Collaborated closely with the design team to integrate modern UI/UX practices, ensuring a seamless and user-friendly interface.

IBM iX   **Aug 2022 – Nov 2022**
Data Scientist Apprenticeship   *Chennai, India*

- Analyzed a dataset of 100,000 user reviews on UI/UX design of IBM iX products, encompassing 20 distinct design variations. Applied statistical analysis and Power BI for data visualization, generating actionable insights to inform product development and marketing strategies.
- Developed a Random Forest model to recommend optimal UI/UX designs based on client-specific use cases, resulting in a 15% increase in client satisfaction. Successfully deployed the recommendation model on the IBM Cloud, enabling efficient and scalable access for stakeholders.

Coding Zen   **Jun 2021 – Aug 2021**
MLE Intern   *Remote, India*

- Developed and deployed an AI-powered digital assistant for kindergarten students. This application leveraged computer vision and natural language processing to enable interactive learning experiences through vision and speech recognition. Increased student engagement by 20% through personalized learning activities, as evidenced by user feedback.
- Improved learning outcomes by 15% by utilizing AI-powered personalization, measured by standardized test scores. Gained practical experience in integrating AI technologies into real-world applications, including infrastructure management and deployment.

Projects

Facility Management System   **May 2024 - Present**

- ∗ Designed and implemented the backend architecture: Utilized Java, Spring Boot, and PostgreSQL to build a robust system for managing and tracking facility-related tickets. Integrated automated ticket assignment and real-time status monitoring, which streamlined issue resolution processes, boosting operational efficiency by 20%.
- ∗ Implemented a responsive user interface: Designed the frontend using React JS, HTML, and CSS to streamline issue reporting and ticket tracking. The intuitive design reduced ticket submission errors by 25% and improved user task completion speed by 40%, significantly enhancing overall system usability and efficiency.

Costume designing using AI   **Dec 2023 - Jan 2024**

- · Developed and deployed an AI-powered web application for personalized outfit suggestions using user-uploaded photos and occasion input. Improved accuracy of outfit recommendations by 50% through the integration of PyTorch for image recognition and GPT for natural language processing.
- · Built a scalable and reliable RESTful API with Django and MongoDB. Enhanced user experience by implementing real-time data updates, improving recommendation algorithms and providing dynamic suggestions based on user preferences.

Technical Skills

Programming Languages/ Databases: Python, R, Java, JavaScript, C, C++, HTML/CSS, Swift, Go, MYSQL, MongoDB, Google BigQuery, Apache Spark, Apache NiFi.
Software Development & Frameworks: FastAPI, Spring Boot, ReactJS, Tailwind, NGINX, Redis, WebSockets, RESTful APIs, Celery, RabbitMQ, Elasticsearch, Prometheus, Grafana.
Development Tools & Version Control: Microsoft Azure, Amazon Web Services (AWS), GitHub, GitLab, Docker, Kubernetes, Jenkins.
Specializations: Machine Learning, Deep Learning, Natural Language Processing (NLP), Data Science & Analytics, Software Engineering.
Certification: Microsoft Certified: Azure AI Fundamentals.