Animesh Singh

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Education

Jaypee University of Information Technology   **Solan**, HP
Bachelor of Technology, Computer Science. CGPA [7.55/10]   June 2024
Relevant Coursework: [Data Structures & Algorithms, Machine Learning, Databases, and Operating System.]

Experience

Freelance   Remote
Full Stack Developer   Aug 2024 - Dec 2024

- Orchestrated the development of a **highly scalable fitness tracker**, leveraging **React, Node.js, and MongoDB**, ensuring **continuous system availability (100% uptime)**.
- Strengthened **user retention metrics by 20%** by formulating and executing dynamic UI components and real-time event-driven architectures.
- Engineered and administered **secure authentication protocols**, utilizing **JWT-based authorization**, safeguarding data integrity and access management.
- Optimized **MongoDB indexing strategies**, streamlining **query execution speed by 30%** and boosting API responsiveness.

Projects

Expense Tracker Application   November 2024 - Ongoing

- Conceptualized and pioneered an **AI-powered expense management system**, employing **React, Node.js, Express, and MongoDB** with **advanced financial insights**.
- Integrated and administered **machine learning models**, facilitating predictive analytics to optimize expenditure patterns and budget allocations.
- Innovated **OCR-based document parsing techniques**, automating receipt digitization and curbing manual data entry inefficiencies.
- Developed **multi-tier authentication mechanisms** using **JWT and OAuth 2.0**, reinforcing security compliance and user authorization.

Credit Card Fraud Detection Model   August 2023 - March 2024

- Conducted extensive **fraud detection modeling**, utilizing **Logistic Regression and Synthetic Minority Over-sampling Technique (SMOTE)**, augmenting recall performance from **0.07 to 0.75**.
- Diagnosed, refined, and formulated **data preprocessing methodologies**, incorporating anomaly detection and feature engineering to amplify model interpretability and predictive accuracy.
- Optimized **hyperparameter tuning techniques**, leveraging grid search methodologies to bolster **model precision and computational efficiency**.

Amazon Product Price Tracker   February 2023 - May 2023

- **Developed a real-time price tracking system** using Django and BeautifulSoup, enabling dynamic e-commerce data extraction.
- **Implemented asynchronous task scheduling**, ensuring continuous data updates and analytics accuracy.
- **Enhanced user engagement by 25%** through automated email alerts and real-time price change notifications.

Skills & Interests

Programming Languages: C++, Python, JavaScript, Haskell
Web Development: React.js, Node.js, Express.js, Django, PostgreSQL, MongoDB
Machine Learning: Scikit-Learn, Pandas, Numpy, Matplotlib, and TensorFlow