ATHARV PATWARDHAN

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Education

Rutgers University — New Jersey, USA
Bachelor of Science in Computer Science + Computational and Applied Mathematics — May 2025
- Achievements: **3.83/4.0 GPA**, Recipient of Philadelphia Philanthropic Society for Information Management Foundation Inc. (PHISIM) Award for Academic Excellence, and Chancellor's Merit Scholarship. Dean's List in all Semesters.

Work Experience

Independence Education — Philadelphia, PA
Software Developer Intern — Jun 2024 - Aug 2024
- Built a data analytics dashboard that links to the Canvas student software, leveraging technologies such as TypeScript, React.js, Chart.js, PostgreSQL, and Node.js to provide actionable insights.
- Used data visualization techniques to present complex datasets in an intuitive manner, enhancing user engagement and enabling data-driven decision-making, which improved learning outcomes for learners and educators.
- Developed a chatbot prototype using the GPT-3.5-turbo model and langchain, integrating a Retrieval-Augmented Generation (RAG) architecture for enhanced accuracy and contextual relevance, which increased user interaction and support efficiency.
- Improved application performance by implementing optimized code practices and modern development tools, achieving a 30% increase in internal efficiency and development speed during peak feature development sprints, while ensuring seamless scalability across the platform.

VIIE — Mumbai, IN
Software Engineering Intern — Dec 2022 - Jul 2023
- Led the development of the VIIE Web Application using React.js, Next.js, and Tailwind CSS, which enhanced scalability, performance, and maintainability, resulting in a better user experience.
- Directed AGILE software development methodology across a 15-member cross-functional team to adapt to shifting project requirements, improving team response time to changes and enhancing resource allocation efficiency.

Feynn Labs — Bangalore, IN
Machine Learning Intern — May 2022 - Jul 2022
- Implemented diverse Machine Learning Models, including LSTM, Multiple Linear Regression, and Support Vector Regression, to solve complex optimization challenges, resulting in enhanced operational efficiency and approximately 15% growth in revenue.
- Conducted data exploration and generated comprehensive reports that helped stakeholders make informed decisions and advance strategic initiatives.

Projects

Autonomous Driving Model
- A Convolutional Neural Network (CNN) for autonomous driving, inspired by Nvidia's end-to-end learning for self-driving cars research paper, tested using the Udacity Driving Simulator.
- Achieved a 90% success rate in lane keeping and applying data augmentation techniques such as Gaussian Blur to improve training results.
- Attained 98% accuracy on the model after training on 50 epochs using the Google Cloud Platform.

AI Job Board
- An AI-driven Job Board leveraging data from US Bureau of Labor Statistics to provide actionable career insights. Integrated a salary prediction model with over 85% accuracy using Random Forest Regression and a user-based collaborative filtering recommendation system powered by cosine similarity, enhancing suggestions by 30%.
- Implemented an interactive dashboard with the streamlit and plotly libraries, to visualize key trends such as salary projections, high-demand skills, growing and declining industry sectors, and much more, enabling users to make data-informed career decisions.

Clash Royale Analytics Dashboard
- Built an interactive analytics dashboard using python and the panel library to efficiently process and analyze over 13 GB of player data from the popular strategy game Clash Royale.
- Leveraged algorithms like K-Means Clustering to uncover insights on metrics such as elixir usage, card usage and other gameplay trends across 20+ arenas, assisting strategic decision making for players.

Skills

Languages: Python, Java, JavaScript, Typescript, C, C++, HTML, CSS
Database: SQL, MongoDB, SQLite
Tools and Frameworks: Scikit-learn, Tensorflow, Keras, Numpy, Pandas, Pytorch, Matplotlib, Holoviews, Hvplot, Seaborn, Git, Streamlit, Spring Boot, Flask, JSON, REST API, Docker, Fast API, Statistics, Big Data Algorithms, Sentiment Analysis, TF-IDF, Microservices, AWS