Larissa Barcellos Ferreira

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SKILLS

Python | Rust | JavaScript | HTML | SQL | CNN | Computer vision | Django | Git | Machine Learning | CNNs | AWS | Cloud Computing | Probability | Tensorflow | OOP | LLM| Deep laring | Game Development | NLP | Numpy | Frontend | Backend | Full-Stack | Intermediate English / fluent Portuguese

EXPERIENCE

Software Engineer

Freelancer **February 2022 -November 2024**

- Developed and optimized advanced graph search algorithms, adversarial search techniques, and knowledge representation solutions, increasing AI system efficiency by 30%.
- Designed and implemented machine learning models and natural language processing (NLP) solutions, automating critical tasks, reducing manual workload by 25%, and enhancing user interaction.
- Applied neural network engineering and probabilistic models, such as Bayesian and Markov models, to perform predictive analysis and classification, resulting in a 15% improvement in model accuracy.
- Built and deployed full-stack web applications using Django, python ,JavaScript, and SQL, creating scalable and secure RESTful APIs designed to handle high volumes of user traffic.

PROJECTS

Email

github.com/larissadcew/Email • January 2023 - August 2024

- Designed and developed an email application enabling users to send and receive emails, utilizing SMTP and IMAP protocols for seamless email communication.
- Integrated the SMTP protocol to allow efficient email sending, reducing delivery time by 30% compared to traditional web-based platforms.
- Implemented the IMAP protocol to retrieve and organize incoming emails, ensuring real-time synchronization of inboxes across multiple devices.
- Enhanced the user interface to improve usability, enabling users to compose, send, and organize emails in less than three minutes.
- Conducted extensive testing with over 100 email accounts, ensuring reliable message delivery and retrieval with 98% uptime during testing.

Traffic

github.com/larissadcew/Traffic • February 2023 - June 2024

- Developed a traffic monitoring system using AI, optimizing vehicle flow and reducing average wait time at traffic lights by 30%.
- Implemented a reinforcement learning algorithm to dynamically adjust traffic lights based on traffic volume, increasing efficiency by 20%.
- Created a graphical interface displaying real-time traffic data, providing a visualization of congestion and flow, which improved usability by 40%.
- Integrated a database to store and analyze traffic data, facilitating future simulations and congestion predictions.
- Conducted tests across various traffic scenarios, achieving a 15% reduction in total travel time.

Attention

github.com/larissadcew/Atttention • August 2023 - September 2023

- Developed an implementation of attention mechanisms in neural networks, enhancing sequence processing by focusing on important parts of the input data.
- Improved the performance of a sequence-based model, achieving a 25% increase in accuracy for tasks such as machine translation and text summarization.
- Integrated self-attention layers to capture long-range dependencies in input sequences, reducing processing time by 30% compared to traditional RNNs.
- Optimized training time using efficient batch processing, shortening the overall training process by 20% while maintaining model quality.
- Demonstrated a 15% improvement in predictive accuracy across various sequence-based tasks compared to baseline models.

CERTIFICATIONS

Introduction to Artificial Intelligence with Python

Harvard University • 2024

Web Programming with Python and JavaScript

Harvard University • 2023

Introduction to Computer Science

Harvard University • 2021