IBRAHIM HASAAN

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EDUCATION

University of Massachusetts Amherst Expected Graduation: **Spring 2024**
B.S in Computer Science, Computing Math, Stats & Data Sciences
Chancellor's Award - $56000 Scholarship, **Dean's Honors List** - (Awarded to Students with a GPA of 3.5+)

Coursework: Web development, Artificial Intelligence, Statistics, ODE's, Calc III, Advanced Linear Algebra, Logic in CS (513), Data Science Algorithms (514), Advanced Algorithms (611), Operating Systems (377), Search Engines (446)

SKILLS

Programming Languages: **Python, JavaScript, C, Java,** TypeScript, VB.net, Rust, HTML, CSS
Tools: Linux, VIM, JUnit, **Node.js, Git, React, TensorFlow, Scikit-learn, Pandas,** Keras

Books and Courses (Self-Study): Algorithm Design, Real Analysis I, K&R C-Programming, Fluent Python, Hands-on Machine Learning, Machine Learning Specialization (Coursera)
Certificates: Supervised Machine Learning, Advanced Learning Algorithms (Stanford & DeepLearning.AI)

PROJECTS

Professor Ratings for Course Selection
- Developed a browser script to integrate professor ratings from 'Rate My Professors' with the course selection website, Spire, to eliminate the tedious and time-consuming process of manually searching for professor ratings.
- Implemented an API to augment the script's capabilities by allowing for efficient data access.
- Streamlined the process for extracting and displaying data using advanced web scraping techniques.
- Customized the user interface to display professor ratings seamlessly within the course selection website.

Airbnb Machine Learning Model
- Developed a neural network-based machine learning model to analyze scraped Airbnb data and identify the best location and pricing strategies for a family-owned Airbnb business.
- Used data visualization and statistical analysis techniques to gain insights into the dataset and identify patterns.
- Fine-tuned a pre-trained model by training it on a smaller set of labeled data relevant to the use case, which allowed for faster convergence and higher accuracy.

Portfolio Website
- Designed and developed a professional-looking portfolio website to showcase skills, experience, and accomplishments to potential employers and clients.
- Customized the website's user interface and layout to make it visually appealing, easy to navigate, and optimized for different devices and screen sizes.

Optimized Course Selection Tool
- Implemented a solution for parsing a text file of major requirements into a JSON object using Python.
- Designed a fluent interface to allows queries to be chained in arbitrary orders, with specified constraints, to analyze requirements and suggest courses to take based on maximum overlap between majors (JavaScript).

WORK EXPERIENCE

Teaching Assistantship at University of Massachusetts Amherst - **Fall 2023**
- Contributed to the development and delivery of engaging course content, including lectures, assignments, and exams.
- Proactively supported student success through weekly discussions and available office hours.
- Ensured students were equipped to succeed by promptly responding to their inquiries on class forums.

Internship at the Punjab Aids Control Program - **Summer 2019**
- Launched successful campaigns to raise AIDS awareness and treatment engagement.
- Improved diagnostic center services through proactive inspections and issue reporting.
- Boosted office efficiency by optimizing social media, filing, blood testing, and storage processes.