**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 -** $56000Scholarship, **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](https://coursera.org/verif%20y/NTJ67CBYGRLK), [Advanced Learning Algorithms](https://www.coursera.org/account/accomplishments/certificate/QZQC85FWHKLM) (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.