AHMED BEN DALY HASSEN

STORYTELLER | DATA SCIENTIST | COMPUTER ENGINEER

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EDUCATION

University of Michigan - Dearborn, Dearborn, MI   Expected Graduation: Dec 2023
Master's in Data Science with Specialization in Big Data
- Relevant Courses: Database Systems, Data visualization and Virtualization, Natural Language Processing, Data Mining, Deep Learning, Intro to Big Data.
- GPA: 3.4

Mediterranean Institute of Technology, Tunis, Tunisia   Sep 2015 – Dec 2020
Engineering Diploma in Computer Systems
- Relevant Courses: Data Analysis, Graph Theory, Data Structure and Algorithms, Database Management Systems, Artificial Intelligence.
- GPA: 3.11

PERSONAL PROJECTS

Personal Branding Website: Svelte Framework Implementation
Web development, Svelte
- Developed a personal website using Svelte as a Framework to showcase my projects and highlight my personality.
- Designed and implemented a user-friendly interface that reflects my creativity and attention to detail, while also providing easy navigation and accessibility.
- Curated a portfolio of my projects on the website, using effective storytelling and visual design to showcase my skills and experience. Additionally, used the website to share my personal interests and hobbies, providing a glimpse into my personality beyond my professional work.

Study case: The effect of profanity in Hip hop in a conservative country (Tunisia)*
Data Collection, Statistics & Data Analysis
- Collected and analyzed data on rapper Klay BBJ's music, selecting him as a study case for the project.
- Conducted a comprehensive study of the evolution of profanity in Klay BBJ's songs over time, using data collected through various sources.
- Determined the correlation between profanity in Klay BBJ's songs and a range of attributes, including topics, featurings, number of views, and time period, by collecting and analyzing relevant data.

The Transformation of the NBA All-Star Game*
Database management, Data Analysis, Data Visualization
- Analyzed scoring, three-point shooting, fan interest, player effort, and defensive ratings to track the evolution of the All-Star Game. Considered players' comments to provide additional insights.
- Examined the impact of internationalization on player selection, game style, and fan interest. Investigated attendance and revenue trends.
- Compared recent changes to the All-Star Game format to past formats to assess their impact on fan engagement and game quality. Also analyzed the risk of injury to All-Star Game players and its impact on their performance and fan interest.

*All these projects will be soon available on my website

Key Class Projects

Unsupervised Topic Modeling Evaluation
Natural Language Processing, Data visualization
- Developed an unsupervised machine learning algorithm that trained and performed topic modeling by utilizing LDA for topic modeling and Gibbs sampling for sampling from an intractable posterior distribution.
- Processed data using the Natural Language Toolkit (NLTK) and visualized results using Dash/Plotly Python.
- Implemented multithreading using C++, incorporated Variational Inference/Monte Carlo Markov Chain, and utilized ChibStyle Estimators for Bayesian updates to predict topics accurately for previously unseen documents.

Building a Recommender System for Netflix using Collaborative Filtering and PySpark
Big Data, Data Analysis, Machine Learning
- Conducted descriptive analysis to explore the data and identify patterns, trends, and insights to inform the development of the recommendation engine.

- Designed and developed a recommendation system for Netflix TV shows and movies using collaborative filtering techniques to recommend content based on user ratings.
- Utilized PySpark for big data processing to efficiently handle and analyze large datasets of user ratings and content information.

PROFESSIONAL EXPERIENCE

University of Michigan-Dearborn, Dearborn, MI   Feb 2022 – Present
Computer Consultant II
- Provide first-level tier support to the UM-Dearborn campus community by delivering exceptional customer service and technical assistance to resolve issues related to software applications, access, and login accounts.
- Advise faculty, staff, and students on how to effectively utilize software applications, access resources, and manage login accounts, resulting in improved user satisfaction and productivity.
- Troubleshoot and resolve hardware and software issues for Windows and Mac computers, printers, office phones, audio-visual equipment, and network-related problems, utilizing advanced problem-solving skills and technical knowledge to minimize downtime and ensure seamless operations.

OLISSEY, Tunis, Tunisia   May 2021 – Present
Creative Designer
- Develop and design visually appealing presentations for pitches and competitions.
- Produce and curate engaging content for social media platforms, including Instagram and LinkedIn, resulting in increased engagement and followership.
- Conceptualize and execute designs for a range of marketing materials, including flyers, brochures, and email newsletters, in collaboration with cross-functional teams.

Institute of Systems and Robotics (ISR), Coimbra, Portugal   Apr 2020 – Oct 2020
Undergraduate Research Assistant
- Spearheaded feature selection efforts in Non-Intrusive Load Monitoring (NILM), leveraging various machine learning classification methods to identify and extract the most relevant features.
- Conducted a thorough review of the latest NILM public datasets, synthesizing key information to inform future research and development efforts.
- Employed both parametric (SVM) and non-parametric (KNN) classification methods to accurately classify data into their respective appliances, leveraging expertise in machine learning and data analysis to achieve optimal results.

SKILLS & OTHER

Hard Skills:
- **Programming:** Python, R, TensorFlow, Spark, JavaFX, C++, C, Linux, SQL (MySQL, Oracle, PostgreSQL), Java
- **Data Visualization:** Observable, Tableau, Flourish, D3
- **Web Development:** Svelte, JavaScript, HTML, CSS, D3
- **Software:** MATLAB, Adobe Suite (Photoshop, Illustrator, Premiere Pro), Tableau Desktop, Microsoft Power BI, Microsoft Office
- **Other:** ROS, SCRUM

Languages:
- **English:** Fluent
- **Arabic:** Native Tongue
- **French:** Advanced

VOLUNTEERING

FIFA World Cup 2022 - Qatar   Nov 2022 – Dec 2022
Spectator Services Volunteer
- Provided wayfinding and assistance to spectators both inside and outside the stadium, including directing them to the appropriate entrances and assisting with ticketing and seating.
- Managed queues and provided guidance at various points throughout the stadium, including at the security screening area, ticket turnstiles, and food concessions.
- Offered support and assistance to families, women, and spectators with disabilities, helping to ensure a safe and enjoyable experience for all.

Passions

Volunteering - Basketball - Traveling - Theatre, Graphic Designing - Reading (Manga, Books)