# AHMED BEN DALY HASSEN

#### STORYTELLER | DATA SCIENTIST | COMPUTER ENGINEER

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#### **EDUCATION**

University of Michigan - Dearborn, MI

Expected Graduation: Dec 2023

Master's in data science with Specialization in Big Data GPA: 3.4

Mediterranean Institute of Technology, Tunis, Tunisia (ABET Accredited)

Sep 2015 – Dec 2020

Engineering Diploma in Computer Systems GPA: 3.11

### **PERSONAL PROJECTS**

Personal Branding Website: Svelte Framework Implementation

#### Web development, Svelte

Developed a personal website with a user-friendly interface in Svelte, featuring my projects, skills, and personality through effective storytelling and visual design.

Study case: The effect of profanity in Hip hop in a conservative country (Tunisia)

# **Data Collection, Statistics & Data Analysis**

Conducted a data-driven analysis of rapper Klay BBJ's music, studying the evolution of profanity in his songs over time and assessing its correlation with various attributes.

The Transformation of the NBA All-Star Game\*

#### Database management, Data Analysis, Data Visualization, Web development

Analyzed various factors, including player performance metrics and the rise of the three points in the All-Star Game, considering player injury risks. I then created a Svelte article with data visualization to illustrate these insights. \* Available on my website

#### **Kev Class Projects**

#### Unsupervised Topic Modeling Evaluation

#### Natural Language Processing, Data visualization

Created an unsupervised machine learning algorithm utilizing LDA and Gibbs sampling for topic modeling, processed data with NLTK, employed Dash/Plotly for visualization, and integrated multithreading in C++, Variational Inference, Monte Carlo Markov Chain, and ChibStyle Estimators for accurate topic prediction in new documents.

# Building a Recommender System for Netflix using Collaborative Filtering and PySpark

# Big Data, Data Analysis, Machine Learning

Conducted a descriptive analysis to uncover insights for a recommendation engine, then designed and developed a Netflix recommendation system using collaborative filtering techniques, with efficient big data processing in PySpark.

#### PROFESSIONAL EXPERIENCE

University of Michigan-Dearborn, Dearborn, MI

Computer Consultant II

Feb 2022 - Present

Provide top-tier customer service, resolving software and hardware issues for seamless operations at UM-Dearborn. OLISSEY, Tunis, Tunisia May 2021 - Present

# **Creative Designer**

Designed compelling presentations, curated engaging social media content, and created marketing materials collaboratively.

Institute of Systems and Robotics (ISR), Coimbra, Portugal

Apr 2020 - Oct 2020

# **Undergraduate Research Assistant**

led feature selection for Non-Intrusive Load Monitoring (NILM), analyzed public datasets for research insights, and used SVM and KNN classification methods to achieve accurate appliance classification in NILM.

#### **SKILLS & OTHER**

# Hard Skills:

- Programming: Python, R, TensorFlow, Spark, JavaFX, C++, C, Linux, SQL (MySQL, Oracle, PostgreSQL), Java
- Data Visualization: Observable, Tableau, Power Bi. D3
- Web Development: Svelte, JavaScript, HTML,
- **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**

I assisted stadium spectators with wayfinding, queue management, and support for a safe and enjoyable experience.