

NIDA ZOHRA

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[LinkedIn](#) | [Github](#) | [Portfolio](#)

CAREER RELATED SKILLS

- Advanced proficiency in Python, SQL, MS Excel, PowerBI, and Tableau
- Competency in building ETL Pipelines on cloud platforms, such as GCP
- Skilled in effectively producing results across all phases of Agile as well as Waterfall methodologies

WORK EXPERIENCE

Machine Learning Engineer

January 2023 – May 2023

Ontario College Application Service, Guelph, ON

- Programmed and presented a prototype for a college program recommendation engine to the company's executive panel, showcasing its potential value and feasibility
- Applied data cleansing techniques to unstructured historical application data using Python and Pandas, resulting in a highly accurate, reliable, diverse, and consistent applicant dataset
- Conceptualized custom evaluation metric for unsupervised machine learning algorithm by scikit-learn, that validates the model's accuracy of 80% or higher for 50% of all college programs
- Conducted comprehensive analyses of various contemporary machine learning algorithms, identifying the top 3 recommender system approaches that best aligned with business needs

Programmer/Analyst

January 2022 – April 2022

Waterloo Regional Police Service, Cambridge, ON

- Tuned performance of T-SQL stored procedures and queries that reliably extract accurate personnel information to execute 90% faster
- Created a robust web app using C# and .NET 6 that eliminated paper-based forms which accelerated the digital transformation of the oldest police co-operative in Canada
- Performed manual testing following a structured test plan, ensuring comprehensive coverage of functional requirements with 100% validation of personnel ranks and their information
- Designed and coded reusable UI components using HTML, CSS and JavaScript with company branding, which was adopted across 5 police services and is still in use today

Mechanical Engineer

August 2019 – April 2021

QAS Arabia Ltd., Dhahran, Saudi Arabia

- Identified inefficiencies in inventory database management via reports generated using SQL which reduced delays in delivering projects
- Supervised the manufacturing process that led to decreasing the turnaround time by 25%
- Developed Standard Operating Procedures for operators that increased operational efficiency by 12%

Mechanical Engineer

September 2018 – July 2019

A to Z Technologies, Atlanta, USA

- Analyzed production rates from relational databases using SQL to optimize manufacturing processes, and presented comprehensive report to stakeholders
- Created detailed technical drawings and specifications for manufacturing and construction
- Collaborated with other engineers and stakeholders to ensure designs meet project requirements

PROJECTS

COVID Dashboard, Conestoga College, Kitchener, ON

- Technologies used: Tableau
- Created informative visualizations based on Johns Hopkins' COVID data, showing the impact on different countries across the globe

Digital Transformation, Waterloo Regional Police Service, Cambridge, ON

- Technologies used: C#, .NET 6, SQL Server, JavaScript, HTML, CSS, TFS
- Contributed to the digital transformation of 5 police services via coherent branding and quick extraction of information which saved over 3 hours of paperwork for police officers on a weekly basis

College Program Recommender System, Ontario College Application Service, Guelph, ON

- Technologies used: python, scikit-learn, scipy, pandas, seaborn, matplotlib, Git
- Built and validated a tailored recommendation engine using past application information which provides relevant program recommendations for over 80% of college applicants

Real-Time Analytics ETL Pipeline, Conestoga College, Kitchener, ON

- Technologies used: SparkSQL, Kafka, Hadoop, GCP
- Consumed data from an online source using Kafka and enabled parallel processing
- Used Spark streaming and RDD to process and analyze data in real-time

EDUCATION

PG Certificate, Big Data Solutions Architecture

April 2023

School of Applied Computer Science & Information Technology, Conestoga College, Kitchener, ON

- President's Honour List, June 2023
- Won popular vote for pitching the topic "Computer Vision" for an Open Education Resource publication released in January 2023

PG Certificate, Computer Applications Development

April 2022

School of Applied Computer Science & Information Technology, Conestoga College, Kitchener, ON

- President's Honour List, June 2022
- Led the team through the complete SDLC to successfully deliver a web application for capstone project

Master of Science, Aerospace Engineering

August 2018

Wichita State University, Wichita, KS, USA

- Devised the Modeling and Simulation of Flapping Wing Micro Aerial Vehicle using MATLAB and Simulink
- Specialization in aeronautical engineering under advisement of Dr. James Steck

Bachelor of Science, Aerospace Engineering

August 2015

Mississippi State University, Mississippi State, MS, USA

- Validated flutter locations of various airfoil shapes using data extracted from wind tunnel experiments
- Specialization in aeronautical engineering with independent study on aeroelasticity

ACHIEVEMENTS/ACTIVITIES

- Ranked #2 in TH.0 HealthTech 2022 Hackathon - Mobile Application for Music Therapy
- Student representative at Waterloo Advisory Committee on Active Transportation for 2022
- Participant of Hack The 6ix 2022 - PulseSafe React App