Mahmoud Abdelhadi

ELECTRICAL ENGINEERING STUDENT · *UNIVERSITY OF BRITISH COLUMBIA*

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SKILLS

Programming Languages C · C# · C++ · Python · Java · HTML

Software Tools SQL/SQLite · xUnit ·MATLAB · GitHub · Scikit-learn · Neural Networks

EDUCATION

University of British Columbia, Canada — Expected graduation date: 2024
Bachelor of Applied Science - Electrical Engineering

- *UBC International Major Entrance Scholarship* — 2018 – Present
  Awarded a merit-Based $96,000 scholarship given to top international students for outstanding academic achievement and extracurricular contributions
- *UBC BASC Dean's Honor List* — 2020 – 2021

TECHNICAL EXPERIENCE

Tutankhamun FC, Egypt — Machine Learning Engineering Intern — May 2021 - August 2021
Professional football club in Fayoum, Egypt

- Collect in-game data to Excel Spreadsheet & performed data cleaning and feature engineering in Python
- Implemented SVM, KNN, Random Forest and Logistic regression models to predict game outcomes

PROJECTS

Principal Component Analysis (grade: 95%) — February 2022 – March 2022

- Used logistic regression to predict the class label of images using the principal components representation of the images
- examined how the classification error changes with the number of principal components used.

SVM & Random Forrest model with Cross Validation (grade: 95%) — February 2022 – March 2022

- Programmed Linear Kernel and RBF (Gaussian) kernel SVM and random forest classifier models in sklearn
- Implemented 5-fold cross-validation for hyper-parameter selection for all models

Linear & Logistic regression model (grade: 100%) — January 2022 – February 2022

- Built different linear regression model with different complexities to find the model with the smallest error
- Programmed a by-hand algorithm using gradient descend to iteratively update parameters until convergence
- Implemented a logistic regression model in Sklearn to accurately fit the data and extract optimal parameters

Amazoom automated warehouse (grade: 106.5%) — November 2021 – December 2021

- Implemented a front-end GUI using CSHTML & SQL; functionality consists of a network of warehouses, shopping cart functionality, Administration portal, tiered authorization, and relational databases of carts, users, and items
- Programmed multi-threaded backend using C#; Implemented automatic robot delivery system, anti-collision system & battery dis/charge simulation
- Developed an algorithm to enhance truck delivery & restocking, mapping, and item placement by 50%
- Designed use-case, sequence, object interaction, and sequence diagrams

ENGINEERING STUDENT TEAMS

UBC Rocket Student Design Team — September 2019 – September 2021
Member of ground support equipment team for Co-Pilot sub-team