MAXWELL THOMAS KING

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EDUCATION

Northeastern University, Boston, MA
Khoury College of Computer Science Jan. 2018-Apr. 2020
Master of Science in Computer Science, GPA: 3.3/4.0
Related Courses: Information Retrieval, Data Mining Techniques, Algorithms, Foundations of AI, Database Management

Wentworth Institute of Technology, Boston, MA
College of Engineering & Computer Science Aug. 2013-Aug. 2017
Bachelor of Science in Mechanical Engineering, GPA: 3.1/4.0
Related Courses: Fluid Dynamics, Circuit Theory, Differential Equations, Calculus (I, II, III), Probability and Statistics

WORK EXPERIENCE

QuickBase Developer at Massachusetts Institute of Technology – Cambridge, MA Mar. 2018-Present
- Designed, improved, and maintained a suite of relational database tools in QuickBase to expedite various tasks for the Department of Material Science's to conserve time, money, and resources.
- Introduced multiple views and roles for these QuickBase applications by integrating HTML and JavaScript, to preserve the integrity and efficacy of the database.
- Implemented scripts to automate daily tasks to improve efficiency and accuracy of data collected and used by the department.

Product Engineering at BorgWarner Morse Systems (Co-op) – Ithaca, NY Jun-Dec. 2016
- Demonstrated engineering knowledge and interpersonal skills when handling multiple time-sensitive engineering tasks dealing with the design and testing of prototypes and production parts.
- Contributed to a failure analysis team where organization and tracking of testing data were vital in solving a major design problem discovered late into production.
- Collaborated with external stakeholders and internal departments to guarantee the quality of the merchandise and timely product development.

TECHNICAL KNOWLEDGE

Programming Languages: Python (Pandas, NumPy, Scikit-learn), Java, JavaScript (J-Query), HTML, CSS (Bootstrap)
Operating Systems: Mac OS, Linux, Windows 7 & 10
Database Related: SQL, MySQL, MongoDB
Other: MATLAB, Excel, QuickBase, Cognos

PROJECTS/RESEARCH

Chicago and Boston Crime Analysis Project Jun-Aug. 2019
- Implemented various preprocessing techniques such as dimension reduction, feature selection, and label encoding to clean up raw datasets.
- Identified patterns between features by using the Apriori technique to examine a list of associated rules.
- Developed Jupiter notebooks to create and compare different types of classification models in order to try and find features with strong a correlation to crime rate.

Natural Language Processing for Genome Classification Oct-Dec. 2018
- Constructed a python script with Scikit-learn libraries to perform various tokenization methods to extract relevant features from a dataset taken from Kaggle.
- Analyzed and reported on how these different methods for feature extraction performed with various machine learning algorithms by computing the accuracy, log loss, and confusion matrices for each model.

Intelligent Pac-Man Project Sep-Nov. 2018
- Utilized graph search algorithms such as DFS, BFS, Uniform Cost Search, and A-star to create Pac-Man agents in python.
- Programmed agents in python to be able to solve Markov decision processes using dynamic programming and the Bellman-Ford equation.
- Incorporated various learning agents in python with learning algorithms such as value iteration and Q-learning to address a spectrum of problems.