Maxwell Thomas King

Boston, MA | king.ma@husky.neu.edu | (802)-279-0623
Available May-Aug. 2019

EDUCATION

Northeastern University, Boston, MA
Khoury College of Computer Science Jan. 2018-Present
Candidate for a 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

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, MongoDB, MySQL
Other: MATLAB, Excel, QuickBase, Cognos

WORK EXPERIENCE

Application Technician at Massachusetts Institute of Technology – Cambridge, MA Mar. 2018-Present

- Designed, improved and maintained tools and applications in QuickBase to expedite various tasks for the financial office of the Department of Material Science to conserve time, money and resources.
- Introduced various views and roles for these QuickBase applications by integrating HTML and JavaScript so integrity and efficacy of the applications were saved.
- Programmed python scripts to automate daily tasks to improve efficiency and accuracy of the data collected and used by the department.

Product Engineering at BorgWarner Morse Systems (Co-op) – Ithaca, NY Jun-Dec. 2016

- Demonstrated engineering knowledge as well as interpersonal skills when handling multiple engineering tasks that dealt with the testing, design and prototyping projects were accomplished in a timely manner.
- Contributed to a failure analysis team where organization and tracking of testing data were vital in solving a major design problem that was discovered late into production.
- Communicated with external stakeholders and internal departments to guarantee quality customer service and timely product development.

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 from Kaggle.
- Identified patterns between features by using the Apriori technique to examine a list of associated rules.
- Developed several Jupiter notebooks using Scikit-learn and pandas python libraries to create and compare different types of ML classification models.

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 solve a spectrum of basic problems.