Parker Dunn

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Education

M.S. in Computer Engineering with a Specialization in Data Analytics Expected May 2023
Boston University College of Engineering, Boston, MA | GPA: 3.72/4.0

B.S. in Chemistry May 2018
Stonehill College, Easton, MA | *Magna Cum Laude* | GPA: 3.83/4.0

Coursework

Machine Learning	Cloud Computing	Software Engineering	Data Structures	Signals
Data Science	Algorithms	Linear Algebra	Probability	Statistics

Projects

Thesis: *Large-Scale Machine Learning for Autonomous Navigation* Jul 2022 - Present

- Develop models in PyTorch for autonomous navigation to expand the available input data and improve the performance of learned navigation policies
- Evaluate deep learning architectures to learn mapping for monocular video data to overhead road layouts for use in autonomous navigation models
- Investigate literature for deep learning techniques and navigation data resources to enhance navigation models

Machine Learning Operations (MLOps) using Databricks in Public Clouds Aug 2022 - Present

- Build machine learning pipelines (ETL, training, and testing) in Databricks from cloud resources (Azure & AWS) to use for implementing machine learning operations
- Design and evaluate CI/CD structures for code, models, and data on Databricks platform
- Report progress and evaluation of the platform's features, ease of use, and cost to collaborating financial firm

Priority Queues for Finding Shortest Path in Network Mar 2022 - May 2022

- Developed priority queues in C/C++ with three teammates that made it possible to find the minimum cost path through a network when using Dijkstra's shortest path algorithm
- Analyzed and reported performance of data structures (rank-pairing, Fibonacci, Quake, and Binomial heaps) that performed comparably to modern optimized priority queues

Work Experience

IT Support Specialist Jun 2021 - Oct 2021
Information Services & Technology, Boston University, Boston, MA

- Addressed issues related to Boston University (BU) services and personal technology for the BU community
- Reduced service request load for IS&T staff by using experience and problem-solving to provide consistent, rapid problem resolution for customers

Associate Chemist Jun 2018 - Jan 2021
PerkinElmer Health Sciences, Boston, MA

- Assembled more than one hundred biotech research products each week, including synthesis and quality control
- Coordinated with the other members of the manufacturing team and adjusted schedule to prioritize completion of daily customer requests in addition to weekly stocking jobs

Skills

Languages: Python, C/C++, MATLAB, SQL, Spark, R
Frameworks: PyTorch, TensorFlow, scikit-learn, OpenCV
Tools: Linux, Git, GitHub, Databricks, AWS