Michael Krah

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EDUCATION

Boston University | Boston, MA — Expected May 2025

B.A. in Computer Science, Minors in Data Science & Anthropology

GPA: 3.97

National Merit Scholarship Recipient

Coursework: Software Engineering, Machine Learning, Deep Learning, Database Design, Computer Vision, Distributed Systems, Probability in Computing, Discrete Math, Linear Algebra, Functional Programming, Algorithm Analysis, Computer Systems, Computer Graphics, Randomized Algorithms

EXPERIENCE

L.L.Bean | Freeport, ME — Jun 2024 – Aug 2024

Data Engineering Intern

- Collaborated with stakeholders on the data marketing and marketing analytics team to identify, document, and model requirements for Mixed Media Modeling In-Housing efforts, resulting in $500,000 in annual savings
- Led cross-team effort to model order data flows for vendor reporting, compiling technical details and analyzing orders captured in internal data warehouse, highlighting gaps and identifying previously missed stream of returns
- Developed set of unit tests with Pytest, improving data pipeline reliability for large scale data extraction

Department of Computer Science | Boston University — Jan 2023 – Present

Course Assistant and Grader

- Led office hours, helping groups of 10-15 students understand course concepts and approach analytical problems
- Created rubrics, graded assignments, and provided comprehensive feedback for classes of 200+ students
- Coordinated with fellow staff and professors to maximize availability and address course challenges

PROJECTS

Spotify Personal Activity Visualizer

- Developed personal web application to record real-time Spotify activity and store historical data, visualizing music listening habits and displaying top songs, genres, and artists; currently hosted on personal website
- Used Node.js and Express.js to serve HTML page; integrated Spotify API to fetch listening data; designed data pipelines for historical and real-time data ingestion, storing over eight years of listening activity with MongoDB

Covid Data Analysis

- Extracted public health policy and Covid case data from disparate sources to conduct in-depth analysis of public policy impact on factors such as cases, deaths, and recoveries with a team of four
- Designed data pipelines in Azure Data Factory; loaded data in Synapse; analyzed and visualized data in PowerBI
- Created a detailed final report highlighting most important policies informed by data analysis

CNN for Categorization of Histopathological Images

- Optimized a convolutional neural network in TensorFlow with custom hyperparameters, testing various techniques to enhance validation, increasing accuracy in detecting malignant cancer cells from 78% to 93%

Dynamic Social Media Website

- Created a dynamic social media website adhering to RESTful principles, leveraging Python with Django web framework for back-end development

SKILLS

Programming: Python, Java, C, JavaScript, Golang

Tools: Git, UNIX, JSON, Node.js, Django, React, HTML, CSS, SQL, Apache Airflow, Microsoft Azure, Google Cloud Platform

PERSONAL

Honors: National Merit Finalist, Dean's List (7 semesters), Suffolk Book Award

Global Skills: Fluent English and French, Intermediate German, Novice Spanish; American and Austrian citizenship