# JOEL BRANDINGER

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## **EDUCATION**

Tufts University
B.S. Data Science

Medford, MA

September 2020 – May 2024

- Minors: Mathematics & Computer Science
- GPA: 3.7 / 4.0
- Relevant Courses: Data Structures, Algorithms, Machine Learning, Statistical Pattern Recognition, Big Data, Cyber Security, Web Programming, Computer Vision, Machine Structure, Probability, Statistics, Linear Algebra, Calculus 1-3

# <u>EXPERIENCE</u>

Wayfair Boston, MA

Software Engineer

July 2024 - Present

- Developing and optimizing routing algorithms to enhance supplier-to-consumer delivery efficiency, utilizing .NET, C#, and SQL leading to a reduction in delivery times
- Conducting comprehensive API testing and integration with Postman, ensuring a robust and reliable fulfillment process within Wayfair's supply chain network

Tufts University Medford, MA

Machine Learning Research Assistant

*November 2023 – May 2024* 

- Collaborated with a professor in the Urban & Environmental Policy department contributing to a study aimed at optimizing water resource management in Karachi, Pakistan through advanced predictive analytics
- Utilized Python and R to analyze dataset of water usage from households, employing machine learning techniques such as multiple regression, spectral clustering, and decision trees to predict water usage patterns

JumboCode Medford, MA

Software Developer

September 2023 – April 2024

- Member of student-run organization dedicated to delivering pro bono software solutions to nonprofits and charities
- Leveraging technologies and tools including TypeScript, React, Next.js, MongoDB, and Python

# **Principal Financial Group**

Des Moines, IA

Software Engineer Intern

May 2023 – August 2023

- Contributed to development and maintenance of a large-scale data warehouse for Enterprise Data & Analytics department
- Built ETL applications using Informatica Power Center to facilitate data population and curation
- Utilized AWS EC2 instances to extract data from Salesforce using Python and SQL

# **Prentiss Hockey Performance**

Stamford, CT

Data Analytics Intern

*May* 2022 – *August* 2022

- Conducted in-depth data analysis to identify key performance indicators for hockey athletes, enabling evidence based decision-making and customized training programs
- Collaborated with coaching staff to streamline data collection and implement performance assessments

#### **SKILLS**

Programming Languages: Python, C, C++, C#, Java, JavaScript, SQL

Tools & Frameworks: PyTorch, TensorFlow, SciKit-Learn, Spark, React, Next.js, HTML, CSS, AWS, GCP, Git, Informatica

Spoken Languages: Swedish (native), English (fluent), Spanish (intermediate)

## **PROJECTS**

### **Chimpanzee Size Estimation**

Medford, MA

Data Science Capstone

September 2023 - May 2024

- Innovative project harnessing the power of Python, OpenCV, PyTorch, and SciKit-Learn to develop a computer vision model for accurate size measurements of chimpanzees, utilizing pose estimation and instance segmentation algorithms
- Collaborated with the Kibale Chimpanzee Project and Tufts Simulation Lab to revolutionize the field of non-invasive research and conservation, providing vital scientific insights

# **Spotify Song Recommendations**

Medford, MA

Statistical Pattern Recognition

April 2023

• Applied unsupervised machine learning techniques to analyze a dataset of Spotify songs, resulting in identification of distinct musical clusters based on various audio features

## ADDITIONAL EXPERIENCE

**Tufts University Varsity Ice Hockey Team** *Member* 

Medford, MA

September 2020 – March 2024

Two Sigma Tutors

Boston, MA

Tutor

August 2022 – January 2024