

# JOEL BRANDINGER

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## EDUCATION

**Tufts University**  
*B.S. Data Science*

**Medford, MA**  
*September 2020 – May 2024*

- Minors: Mathematics & Economics
- GPA: 3.65 / 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

## EXPERIENCE

**Tufts JumboCode**  
*Software Developer*

**Medford, MA**  
*September 2023 – Present*

- Proactive contributor within a student-run organization dedicated to delivering pro bono software solutions to nonprofits and charitable organizations
- Spearheading the creation of a platform for Sibling Connections, facilitating the reconnections of siblings separated by the foster care system in Massachusetts
- Leveraging technologies and tools including TypeScript, React, MongoDB, and Python

**Principal Financial Group**  
*Software Engineer Intern*

**Des Moines, IA**  
*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**  
*Data Analytics Intern*

**Stamford, CT**  
*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
- Assisted in maintenance of data management system to ensure accessible data for ongoing analysis and reporting

## SKILLS

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

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

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

## PROJECTS

**Chimpanzee Size Estimation**  
*Data Science Capstone*

**Medford, MA**  
*Present*

- 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 algorithms to analyze visual data
- Collaborating with the Kibale Chimpanzee Project and Tufts Simulation Lab to revolutionize the field of non-invasive research and conservation, providing vital scientific insights

**Scholar Puck Track**  
*Personal Project*

**Medford, MA**  
*September 2023*

- Developed a full-stack web application tailored to effectively track and visualize NCAA hockey commitments from various junior hockey leagues across North America
- Extracted and preprocessed raw data sourced from the EliteProspects API to construct a robust database in DynamoDB
- Seamlessly implemented AWS CI/ CD pipeline utilizing Python, YAML, JavaScript, and React

**Spotify Song Recommendations**  
*Statistical Pattern Recognition*

**Medford, MA**  
*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
- Explored upgrading the K-Means algorithm to a Gaussian Mixture Model to leverage probabilistic modeling

## ADDITIONAL EXPERIENCE

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

**Medford, MA**  
*September 2020 – Present*

**Two Sigma Tutors**  
*Tutor*

**Greater Boston, MA**  
*August 2022 – Present*