

# Justin Chen

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Availability: July – December 2022

## EDUCATION

### Northeastern University, Khoury College of Computer Sciences

*Candidate for Bachelor of Science in Data Science and Business Administration*

**Awards and Honors:** Dean's Scholarship, Dean's List, University Honors Program

September 2019 - Present

Expected: December 2023

GPA: 3.48/4.0

**Relevant Coursework:** Object Oriented Design; Discrete Structures; Financial Data Analytics with Python; Data Science Foundations; Fundamentals of Computer Science 1 and 2; Sports, Media, and Communication

**Current Coursework (Spring 2022):** Organizational Behavior, Machine Learning and Data Mining 1, Information Presentation and Visualization, Database Design

**Activities:** Baseball Student Manager, WRBB Sports, The Red and Black, Intramural Sports

## SKILLS AND INTERESTS

### Programming Languages and Frameworks:

- Proficient: Java, Python, Racket
- Familiar: Django, SQL, HTML, CSS, Javascript, React, R

**Software:** Git, IntelliJ/PyCharm, Jupyter Lab, Visual Studio Code, AWS

**Interests:** Sports Memorabilia, Movie Soundtracks, Web Development, Sports Technology

**Other:** Social Media, Sports Writing and Broadcasting, Chinese (native speaker)

## PROJECTS

### Predicting Batted Ball In-Play Average (BABIP) with Statcast (Python/Jupyter Notebook)

- Presented the correlation between BABIP, traditional counting stats, and batted-ball metrics
- Used K-NN and Random Forest to predict batted-ball results using exit velocities and launch angles
- Scraped Baseball Savant data with Selenium and BeautifulSoup; wrangled and stored data with Pandas and CSVs
- Utilized Plotly to create graphs visualizing the relationships between batted-ball metrics and results

### Image Editor and Animator (Java)

- Fully functional image processor that adds filters, colors, and size changes to shapes
- Animates shape transformations with Java Swing and allows downloads
- Used the Factory and Model-view-controller design patterns

## WORK EXPERIENCE

### Student Manager and Analyst

*Northeastern University Baseball*

Boston, MA

January 2020- Present

- Collected batted ball and pitching metrics with Rapsodo and HitTrax
- Charted stats during intrasquad games, including pitching charts and offensive execution
- Utilized Synergy and Trackman data to create scouting reports and pitch design
- Assisted coaches and athletics staff with practice and gameday operations

### Baseball Systems Development Co-op

*Baltimore Orioles*

Baltimore, MD

July 2021- January 2021

- Rebuilt data pipelines for player stat views on the team's internal site with Django
- Developed amateur player evaluation forms and tables for scouts with React
- Made quality checks and internal ID mapping for imported third-party data
- Created Slack bots for bad data quality notifications
- Automated web scrapers with AWS lambda functions

### Course Assistant

*Khoury College of Computer Sciences*

Boston, MA

September 2020- June 2021

- Tutor for Fundamentals of Computer Science 1
- Graded and gave feedback on students' weekly assignments
- Led office hours and lab breakout rooms to discuss and practice course concepts