
Justin Sech

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Education

Johns Hopkins University

M.S.E in Computer Science with focus in Machine Learning

Baltimore, MD

December 2021 (expected)

B.S in Computer Science, Minor in Applied Mathematics & Statistics

December 2020 (expected)

GPA: 3.78; All-Semester Dean's List

Relevant Course Work: Natural Language Processing, Machine Learning, Data Science, Artificial Intelligence, Object Oriented Software Engineering, Algorithms, Data Structures, Probability & Statistics, Intermediate Programming (C++/C), Linear Algebra

Work Experience

Natural Language Processing and Machine Learning Research Intern

May 2020—Present

The Johns Hopkins Center for Language and Speech Processing (Dr. Mark Dredze Group)

Remote

- Extract language features from billions of international tweets to track behavior changes in populations on Twitter.
- Compare to known political events to identify indicators in social media data that are predictive of these political events.
- Designed a custom Mechanical Turk annotation form and quality-control process to crowdsource data labelling
- The paper written on the above work was accepted to the upcoming Workshop on Noisy User-generated Text (Nov. 2020)

Skills Used: Python, pytorch, scikit-learn, BERT language model, Mechanical Turk and HTML, Pandas, git

Machine Learning Engineer Intern

June 2019—August 2019

SoKat Consulting

Rockville, MD

- Developed an explainable machine learning technology in Python using natural language processing for implementation in an \$80 billion share of the federal grant industry
- Researched, extracted, and analyzed novel data features from federal grant application PDFs and massive databases to provide solutions to inefficient grant application processes
- The above work contributed to a 2019 Government Innovation Award winning project for Public Sector Innovation

Skills Used: Python, scikit-learn, Natural Language Processing (TF/IDF, Bag of Words, Word2Vec, POS Tagging, NLTK), Jupyter Notebooks, Pandas, Numpy, Seaborn, Amazon Web Services (SageMaker, EC2, S3), SQL

Relevant Experience

TEDxJHU (officially licensed as a TEDx organizer)

Baltimore, MD

Director of Communications

May 2020-Present

- Supervise the development of 3-8 official TEDx talks per semester (uploaded to the official TEDx YouTube channel)
- Lead a team of 10 speaker liaisons in developing each speakers' TEDx talks
- Create and enforce talk development timeline while directly supporting each speaker team

Speaker Liaison

September 2017—May 2020

- Manage 1–3 speakers per semester to guide development of their official TEDx talk
- Critique and revise written drafts, coach verbal and physical presentation delivery, incorporate impactful visual aid

Juni Learning

Remote

Computer Science Instructor

February 2019—Present

- Teach Advanced Python (data structures, algorithms, webscraping, API skills, data visualization), Object Oriented Programming in Java, and Programming Fundamentals to 8-14 year olds in one-on-one, weekly video-call lessons
- Create student-by-student lesson plans that strive to excite students' passion for computer science by building an engaging and challenging environment for each student to look forward to

Projects

StudyBuddy – Developed a web app to automatically recommend scheduled study/meeting times for groups of students by using dynamic programming to optimize multiple users' free times before major deadlines and test dates.

Tool-Box: Java, JavaScript, React, HTML, SQLite, Materialize CSS, Postman, Google Calendar API, JHU's Course Catalog API, MVC Design Pattern, Version Control, Gradle, Javalin, JUnit, Travis CI

Skills & Interests

Skills: Python, Java, Pandas, Pytorch, Scikit-learn, Mechanical Turk, Amazon Web Services, Machine Learning, Natural Language Processing, C++, C, JavaScript, React, SQL, HTML, CSS, Unix, Git, Inter-Team Facilitation, Public Speaking and Presentation

Interests: Playing guitar in a band and all things music, home-brewing, and scuba diving