**jasonbak.me** linkedin.com/in/jasonjbak github.com/jasonbak jason.j.bak@gmail.com

#### **EDUCATION**

# **Carnegie Mellon University**

B.S., Stats/Machine Learning, '19 minor in computer science minor in chemistry

# **RELEVANT COURSEWORK**

#### **COMPUTER SCIENCE**

Graduate Machine Learning\*
Computer Systems
Imperative Programming
Functional Programming\*
Software Design
Python Programming

# STATISTICS / MATH

Statistics Theory\* Probability Theory Discrete Math Linear Algebra

# **SKILLS**

# **PROGRAMMING LANGUAGES**

C, Java, Python, JavaScript

# **TOOLS & FRAMEWORKS**

Angular2, Jekyll, Git, Vim, HTML/CSS, LATEX

#### **DESIGN PROCESS**

Wireframing, paper prototyping, storyboarding

# **HONORS & AWARDS**

Feb 2<sup>nd</sup> Place (\$1024), Overall

'17 HopHacks

Feb APT Sponsor Award (\$600)

'17 TartanHacks

Mar JSHS Program Scholarship

'15 Department of Defense

Mar National JSHS, Presenter

'15 National Junior Science and Humanities Symposium

Mar 2<sup>nd</sup> Place, Overall

'15 New York Junior Science and Humanities Symposium

# **EXPERIENCE**

**a** Amazon incoming software developer engineer intern

seattle, wa summer '18

· Incoming, summer '18

🔀 Carnegie Mellon School of Computer Science

pittsburgh, pa

teaching assistant

Lead labs, hold office hours, and grade coursework for:

[fall '17] CS 15-122, Principles of Imperative Programming (i.e., Data Structures)

# **Fulcrum Global Technologies**

chicago, il

fall '17

legal software developer intern

summer '17

- · Worked with MarkLogic and SQL to create an engine to standardize dirty data.
- · Used ASP.NET Entity Framework to build a dynamic model of a law firm.
- · Built dashboards for legal manager professionals using DevExpress.

# W University of Washington

new york, ny

research assistant (remote)

spring '14, fall '14, spring '15

- · Automated analysis and organization of data on an FTP server.
- · Experimentally corrected instrumentation bias of air temperature readings.

## **PROJECTS**

Keyboard-based tab navigation Chrome extension

[ JavaScript, HTML/CSS ]

Enables users to quickly navigate between tabs with highly-customizable keyboard shortcuts. Removes the need for searching through a haystack of tabs and making tabs of websites already open.

**Knowledge graph of political nexus** [Spark, Kafka, NLTK, Neo4j, ElasticSearch, Flask, Angular2] Streams news articles in real-time, tagging related entities in. After constructing knowledge graphs, hidden insights regarding specific businessmen, politicians, etc. are made accessible through the Nexus API and web client.

**Messenger-based political assistant bot** [Django, api.ai, NLTK, Microsoft Cognitive Services] Provides a political news digest to users upon request across the Facebook Messenger interface. Based on the citizen's interests and values, they can seamlessly contact their senators, donate to causes, or get involved in local activism to make a difference.

# Password security proof-of-concept program

[ Python ]

Collects and analyzes handwriting tendencies of different users. It is able to successfully differentiate between a profiled user and an imposter using less than 20 training instances per character.

## **HOBBIES**

Long-distance running, digital photography, journaling, tennis, guitar.