JASON BAK

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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
Practical Data Science*
Statistics Theory*
Probability Theory
Discrete Math
Linear Algebra

SKILLS

PROGRAMMING LANGUAGES
Java, Python, C, JavaScript

TOOLS & FRAMEWORKS
Angular2, Jekyll, Git, Vim,
HTML/CSS, LaTeX

DESIGN PROCESS
Sketch, wireframing, paper
prototyping, storyboarding

HONORS & AWARDS

Feb '17 — **2nd Place ($1024), Overall**
HopHacks

Feb '17 — **APT Sponsor Award ($600)**
TartanHacks

Mar '15 — **JSHS Program Scholarship**
Department of Defense

Mar '15 — **National JSHS, Presenter**
National Junior Science and Humanities Symposium

Mar '15 — **2nd Place, Overall**
New York Junior Science and Humanities Symposium

*denotes in-progress

EXPERIENCE - INDUSTRY

Amazon seattle, wa
incoming software developer engineer intern summer '18

Fulcrum Global Technologies chicago, il
legal software developer intern summer '17
· Worked with MarkLogic and SQL to create an engine to standardize dirty data.
· Built a dynamic model of a law firm using ASP.NET Entity Framework.
· Designed and built legal dashboards using ASP.NET MVC and DevExpress.

EXPERIENCE – ACADEMIA

Institute for Software Research pittsburgh, pa
research assistant spring '18
· Partitioning deep neural networks across devices to lower energy consumption.

Carnegie Mellon School of Computer Science pittsburgh, pa
teaching assistant fall '17
Led labs, held office hours, and graded coursework for:
  CS 15-122, Principles of Imperative Programming (i.e., Data Structures)

University of Washington new york, ny
research assistant (remote) spring '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.

Updated 02/08/18