JASON BAK

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EDUCATION

Carnegie Mellon University
BS Stats/Machine Learning Dec '19
minor in computer science
minor in chemistry

RELEVANT COURSEWORK

COMPUTER SCIENCE
Graduate Machine Learning
Parallel Algorithms
Computer Systems
Algos and Adv. Data Structures
Imperative Programming
Functional Programming
Software Design

STATISTICS / MATH
Advanced Data Analysis
Data Mining
Practical Data Science
Modern Regression
Probability Theory
Discrete Math

SKILLS

PROGRAMMING LANGUAGES
Python, Java, C/C++, JavaScript

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

DESIGN PROCESS
Sketch/Figma, 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

EXPERIENCE - INDUSTRY

Amazon — seattle, wa
software development engineer intern, **ai algorithms** — summer '18
· Implemented internal shingling of data for the Random Cut Forest (RCF) library.
· Extended an API to granulize RCF scores to provide per-dimension values.

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
· Partitioned 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

Analysis of my personal journal   [Python, NTLK, Stanford CoreNLP, TextBlob, textgenrnn]
Analyzed my personal journal of four years (350+ pages) to identify trends that promote happier writing, which may be correlated to a happier life.

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 and tags related entities. After constructing knowledge graphs, hidden connections between businessmen, politicians, etc. are made accessible via 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 FB Messenger. 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.

HOBBIES: Long-distance running, digital photo/videography, journaling, tennis.

* denotes in-progress

Updated 05/25/19