JASON BAK

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

EDUCATION

Carnegie Mellon University
B.S., Stats/Machine Learning, '19*
minor in computer science*
minor in chemistry

COURSEWORK

Imperative Programming
Software Design
Statistical Methods
Discrete Math
Cognitive Psychology
Python Programming

SKILLS

PROGRAMMING LANGUAGES
C, Python, Java, C#

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

DESIGN PROCESS
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

Apr '14 — **1st Place ($150), Earth and Environmental Sciences**
WAC Invitational Science Fair

May '14 — **1st Place, Earth and Environmental Sciences**
NSF Noyce Science Fair

* denotes intended

EXPERIENCE

Carnegie Mellon School of Computer Science — pittsburgh, pa
teaching assistant — fall '17
Lead labs, hold office hours, and grade coursework for:
  [fall '17] CS 15-122, Principles of Imperative Computation.

Fulcrum Global Technologies — chicago, il
legal software developer intern — summer '17
Team: DataZoo
· Created an ontology for a MarkLogic GraphDB using OWL and RDFS.
· Used ASP.NET MVC 5 Entity Framework to populate MarkLogic with a dynamic model of a law firm.

University of Washington — new york, ny
research assistant (remote) — spring '14, fall '14, spring '15
· Developed a program to automatically analyze and organize data from an FTP server from the National Oceanic and Atmospheric Administration (NOAA) station at Barrow, Alaska.
· Data were used to experimentally correct instrumentation bias of Arctic air temperature readings from the 1850s.

St. John's University — queens, ny
research assistant in polymer nanostructures — summer '14
· Devised a time efficient and green method for synthesizing polymer composites coated with gold nanoparticles (AuNPs).
· AuNP conjugated polymer composites were tested for their catalytic and artificial enzyme properties.

PROJECTS

Nexus | devpost.com/software/nexus   [Spark, Kafka, NLTK, Neo4j, ElasticSearch, Flask, Angular2]
Nexus streams news articles in real time, tagging related entities in text. After constructing knowledge graphs, hidden insights regarding specific businessmen, politicians, etc. are made publically accessible through the Nexus API and client.

Doug | devpost.com/software/doug   [Django, api.ai, NLTK, Microsoft Cognitive Services]
Doug 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.

PasswordProtect | github.com/jasonbak/15112project   [Python]
PasswordProtect 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, guitar.