Robert A. Washbourne

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https://github.com/rawsh

EDUCATION: University of Massachusetts, Amherst - B.S. in Computer Science 2019-2023
Grade Point Average: 3.5

RELEVANT COURSEWORK: Data Structures & Algorithms, Programming Methodology, Introduction to Computation, Computer Virtualization, Propositional Calculus, Calculus II & III, Physics I & II

TECHNICAL SKILLS:
○ Python, Javascript, NodeJS, React, Java, Git/Github, Kubernetes, Serverless, Amazon Web Services, Azure
○ Machine Learning, Natural Language Processing, Neural Network Training, Parallelization, Web Services, Web Development, Computational Finance, Statistical Analysis, Computer Vision

WORK EXPERIENCE:

Belmont Technologies   *Research Intern*   Houston, TX, 6/2020 - Current
○ Created a scalable Python environment to run uploaded code using Docker and Celery workers with live logging & dependency handling, protecting clients from malicious user uploads with a custom sandbox.
○ Constructed a document scraper with spaCy NLP to extract geophysical names, finding 30% more candidates with fewer bad matches and three times lower execution time than our old Regex scraper
○ Learned Kubernetes to refactor Python simulation services for scalable and distributed compute

EZCaselaw   *Programmer and Partner*   Houston, TX, 6/2018 - 10/2019
○ Leveraged cloud technologies to bring startup's case law research web extension from beta to production
○ Designed landing page, authentication, and purchase flow and added plugin installation page
○ Implemented usage tracking with Google Analytics to provide detailed metrics to the marketing team

Belmont Technologies   *Software Engineering Intern*   Houston, TX, 8/2017 - 1/2019
○ Wrote a NodeJS data mining microservice to extract structured data from scanned research documents
○ Leveraged serverless functions and AWS S3 to easily bulk process PDFs, extracting images and relevant data
○ Trained a neural network to detect table structure in images and extract text using OCR

PROJECTS AND LEADERSHIP
○ Black Scholes computational finance Python notebook for the Devito Project https://git.io/JITk4, May 2020
○ Linux blog with peak 15 thousand views per month built with NodeJS and AWS, www.devpy.me
○ Skytree Academy (non-profit organization) Wordpress website, Summer 2018
○ Utilized modern JavaScript frameworks such as React and NodeJS to create an intuitive and fast task management app for Inturact, a Houston SaaS Marketing agency, Summer 2017
○ Wolfram Camp project to find "interesting" image features using neural networks, Summer 2017
○ NodeJS homework application using Latex and Sage Math for Texas A&M math professor, Summer 2016

HONORS AND AWARDS
○ University of Massachusetts Amherst Chancellor's Award, 2019-2023
○ Chevron U.S. REACH (Recognizing Excellence and Achievement) Scholarship, 2019
○ National Merit Finalist, 2019