



Peter Murphy



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WORK EXPERIENCE

Software Engineer 01/2022 - present
Credit Karma Charlotte, NC

- Building backend microservices for banking applications
- Designing financial products for members and scalable platform solutions to support other teams

Data Engineering Intern 06/2021 - 08/2021
Credit Karma Alexandria, VA

- Contributed to an Audience Forecasting service to help story and notification authors view estimated audience reach for the Recommendation System within the Data Engineering Division
- Improved observability and diagnostics within the service
- Helped other developers and notifications authors troubleshoot issues within the service

Part-time Software Engineer 06/2019 - 01/2021
Decipher Technology Studios Alexandria, VA

- Contributed to an AutoEncoder-based Log Anomaly Detection service control system
- Contributed to the GreyMatter backend control-plane features, extending Envoy's service mesh API
- Researched reinforcement learning techniques for the Grey Matter Sense team, developing methods of policy stabilization and sequence to sequence encoding

Policy Intern 06/2020 - 08/2020
DCLRS Washington, D.C.

- Attended Congressional hearings and virtual conferences to report on agricultural, business, and healthcare interests
- Wrote memos highlighting research findings and legislative efforts pertaining to clients' interests
- Redesigned the firms biographical brochure

EDUCATION

B.S. in Computer Science 2021
Virginia Tech, College of Engineering
Philosophy, Politics, and Economics Minor

Coach 12/2018 - present
Major League Hacking Global 

- Empower hackers to create technical solutions via mentorship on topics ranging from general debugging to higher-level application development
- Provide preliminary and on-site assistance to organizers by communicating my experience and advice regarding team leadership, resource management, increasing community engagement, and incident resolution
- Demonstrate MLH's standard of excellence at events hosting 200 - 1,500 participants whether that means #TakingOutTheTrash or resolving conflicts
- Promote inclusivity by engaging participants of all skill levels
- Represent MLH's partners' brands by providing tips about their services including: Capital One, Google Cloud, GitHub

Coach Lead 04/2020 - 10/2020
Major League Hacking North America

- Hosted 1:1 calls with other Coaches to strengthen MLH's internal support network, strategize for future endeavors, and answer questions about the goings on within MLH

LEADERSHIP

VTHacks 2019 - 2021
Director, Co-Director, Sponsorship, Public Relations
Helped plan and execute Virginia Tech's 6th-9th hackathons

Virginia Tech Honor System 2018 - 2021
Student Panel Member
Participated in student-run hearings for honor violations

Coding Club 2015 - 2018
Founder, Director
Found, planned and executed Bishop Ireton's first hackathon

Boy Scouts, Troop 680 2015 - 2016
Senior Patrol Leader
Planned and led meetings for troop of 50 scouts for one year

SKILLS

Tech Stack

| | experience / proficiency |
|---------------------------------------|--------------------------|
| Java | ●●●●○ |
| Unix | ●●●●○ |
| Python, pandas, Selenium/bs4, PyTorch | ●●●●○ |
| C | ●●●○○ |
| JavaScript / TypeScript, HTML & CSS | ●●●○○ |
| Bash | ●●●○○ |
| Scala | ●●●○○ |
| Go | ●●○○○ |
| React | ●●○○○ |
| Swift | ●●○○○ |
| New Relic | ●●○○○ |
| Splunk | ●●○○○ |
| CCI | ●●●○○ |
| AWS, Google Cloud, k8s, Docker, Helm | ●●●○○ |

Non-Tech Stack

| | |
|------------------------|-------|
| Planning, Organization | ●●●●● |
| Writing | ●●●●○ |
| Public speaking | ●●●●○ |

Graphic Design

| | |
|-------------------|-------|
| Adobe Photoshop | ●●●●○ |
| Blender | ●●●○○ |
| Adobe InDesign | ●●●○○ |
| Adobe Illustrator | ●●●○○ |
| Adobe Premiere | ●●●○○ |

PROJECTS

PyTorch Basics [🔗](#) 01/2020

- A sandbox repository for implementing state of the art Reinforcement Learning algorithms
- This repo was stood-up with the help of some colleagues and is intended to be as straightforward as possible with respect to the tools and algorithms used by the Decipher Sense team

5-4 Podcast Website [🔗](#) 08/2020

- Designed and maintain the website for the 5-4 podcast
- Wrote a Python script to automate pagination for individual episodes with their respective transcripts

Personal Website [🔗](#) 02/2020

- Built a portfolio website showcasing projects, designs, and events I am involved in using the gatsby.js framework

AECOM Call Tracker 02/2020

- Built a webscraping utility website used at an AECOM hurricane relief call center in Ponce, Puerto Rico
- The application uses Python, Flask, and Selenium to pull records for a given time range from a 3rd party website and displays them on a web page deployed to an EC2 instance for easy analysis of the call center's productivity that day

DCLRS Brochure [🔗](#) 07/2020

- Used Adobe InDesign to redesign the biographical brochure describing the executive staff of DCLRS as well as the firm's services and customer success stories

Python MIPS32 Assembler [🔗](#) 08/2021

- An assembler written in Python which, given valid .asm code, generates the corresponding machine code
- Adapted from an assignment for CS-2506
- Supports over 20 instructions

Calligula's Compendium [🔗](#) 07/2020

- A Discord bot that serves as an interface for a collection of Dungeons & Dragons APIs and manually curated datasets of various skills, classes, spells, items, etc. to streamline digital play during
- Built with Discord.py with some friends

CS-3654 Final Project [🔗](#) 12/2020

- Worked with a partner to develop a data visualization project exploring trends in 40 years of global suicide data across the axes of country, age, generation, and GDP
- We used BeautifulSoup, pandas, sklearn, and matplotlib to webscrape Wikipedia to build a database of historical events used for naive sentiment analysis which was plotted against countries' death rates to test our hypotheses

CS-3214 Thread Pool 10/2020

- Wrote a workstealing fork-join threadpool in C which implements futures and thread completion tracking

CS-3214 HTTP Server 12/2020

- Wrote a personal HTTP/1.1 server in C which supports IPv4 and IPv6, JWT validation and authentication, IDOR blocking, and concurrent connections via multithreading
- Deployed to and AWS EC2 instance

HONORS & AWARDS

Eagle Scout 07/2015

Boy Scouts of America

Earned the Bronze, Gold, and Silver Palms in addition to the highest rank of Eagle

Valedictorian 06/2018

Bishop Ireton Class of 2018

MLH 2020 Top 50 Hacker [🔗](#) 02/2020

Major League Hacking

Selected from over 100,000 global hackers to share my story for Major League Hacking's Top 50 Hackers of 2020 list