

ALEX ZHARICHENKO

Software Engineer and Data Scientist

✉ azharichenko@gmail.com

☎ 717-395-3498

📍 Pittsburgh, PA

🌐 [linkedin.com/in/azharichenko/](https://www.linkedin.com/in/azharichenko/)

🐙 github.com/azharichenko

EXPERIENCE

Software Engineering Intern

Uber Advanced Technologies Group

📅 May 2020 – Aug 2020

📍 Pittsburgh, Pennsylvania

- Added distributed tracing to our services to help monitor, optimize performance, and find root causes of issues in our system.
- Created the foundation for observing data from the moment it comes off the autonomous vehicles as it passes through all the downstream systems.
- Python, Golang, AWS, Terraform, Honeycomb.io

Software Engineering Intern

Highmark Health

📅 May 2019 – May 2020

📍 Pittsburgh, Pennsylvania

- Built an internal utility and web app for converting SQL queries into PySpark code for faster execution on computing cluster.
- Assisted with bringing immersive analytics to the organization.
- Python, PySpark, Flask, Apache Hive, SQL, HTC Vive

Software Developer

University of Pittsburgh School of Medicine (Department of Developmental Biology)

📅 Aug 2018 – May 2019

📍 Pittsburgh, Pennsylvania

- Built a Shiny application to help research scientists get subsets of large gene variant datasets.
- Redeveloped the department's data pipeline for processing sequenced RNA data.
- R, Tidyverse, SQLite, Shiny, Nextflow, Java

Software Engineering Intern

Carnegie Mellon University Software Engineering Institute (Emerging Technology Center)

📅 May 2018 – Aug 2018

📍 Pittsburgh, Pennsylvania

- Built dashboard web application for performing analysis and visualizations of cyber intelligence data for a study.
- Performed analysis of data collected through the use of NLP for identifying key terms and descriptive statistics.
- Python, Django, HTML, Javascript, SpaCy, Pandas, PostgreSQL

EDUCATION

B.S. in Computer Science and B.S. in Statistics

University of Pittsburgh

📅 Aug 2017 – Exp. Dec 2021

Deep Reinforcement Learning Nanodegree

Udacity

📅 Jun 2020 – Present

COURSEWORK

- Algorithms, Data Structures, Systems Software, Operating Systems, Deep Learning, Database Management
- Statistical Learning, Probability, Statistics, Multivariate Analysis, Linear Algebra, Data Science, Time Series Analysis
- Future coursework: Networking, Bayesian Statistics, Machine Learning, High Performance Computing

RESEARCH

University of Pittsburgh

Educational Data Mining Research

📅 Sept 2019 – Present

- Research for understanding core courses in the CS curriculum and effectiveness of teaching.
- Currently a work in progress.

SKILLS

Python, R, Golang, Java, SQL, Spark, AWS, scikit-learn, PyTorch, numpy, Pandas, Tidyverse, Flask, Django, Shiny, Git, C/C++

PRESENTATIONS

- "Gems of the Python Standard Library" at PyOhio 2020
- "Scraping Your Way to a Dataset" at PyOhio 2019
- "Building the Pitt API with Python" at Pittsburgh Python

EXTRACURRICULARS

NeurIPS 2020 Flatland Challenge

Participant

📅 Jun 2020 - Present

- Participating in a multi agent reinforcement challenge dealing with trains and specifically "how to efficiently manage dense traffic on complex railway networks."

Pitt Computer Science Club

Business Manager

📅 Apr 2018 – Apr 2020

- Developing university student's professionally through club projects, mentorship, hackathons, networking, interview preparation, and programming competitions

Initiative Lead (CSC Hacks)

📅 Apr 2020 – Present

- Managing CSC Hacks. A semester long hackathon to help freshman build up their skills.

The Hackathon A Team

Event Organizer

📅 Dec 2018 – Present

- Lead and run various hackathons put on by the School of Computing and Information
- SteelHacks 2019, 2020, 2021
- ShelInnovates 2019, 2020, 2021

PROJECTS

PittAPI

- An open source library for scraping various data from the University of Pittsburgh

N.U.T.T.I.E.

- A trading bot made using reinforcement learning to purposely make the worst trades and lose as much money as possible

semester-progression

- A useful visualization of a semester's progression using a raspberry pi and eInk display

PittCSWiki

- Wiki for Pitt CS majors to help them navigate through college and internships with knowledge from upperclassmen

hacks-bot

- A discord bot for managing hackathons
- Helps with announcements, finding mentors, coordinating judging, etc.