Patrick Earl

+1 484-903-7150
patrick.earl95@gmail.com
www.pat-earl.com
Allentown, PA

EXPERIENCE

Kutztown University of PA — Kutztown, PA
Instructor — *08/2019 - Present*

- Facilitate and deliver lectures for undergraduate Computer Science courses. Primary topics taught include:
  - Introduction to Computer Programming (taught using C++)
  - Introduction to Data Analysis with Python & Pandas
  - Data Visualization with Tableau
  - Computer Networks (Focus on App-Layer Protocols and overview of TCP/IP Reference Stack)
  - Linux (Filesystem Overview, Basic Commands, Processes, Text Processing, Scripting)
  - Computer Systems Integration
- Service on departmental committees.
- Maintain PHP web applications written for the CS&IT Department.

Kutztown University of PA — Kutztown, PA
Graduate Assistant — *08/2018 - 05/2019*

- Assisted with data collection for an *NSF* grant.
- Held tutoring hours for undergraduate computer science students.

St. Lukes University Health Network — Allentown, PA
Data Reporting Internship — *05/2018 - 08/2018*

- Developed Python application that confirmed data linkage between two datasets.
- Created Python Selenium script to automate downloading of CSV files from web app.

SKILLS

Technical

- **Programming Languages** - Python, C++
- **Databases** - SQL, Database Management, and Creation
- **Computer Networking** - TCP/IP Reference Model, App-Layer Protocols, Routing
- **Linux System Administration** - BASH Scripting, Management, Software Installations

EDUCATION

Kutztown University of PA

- Data Analytics Graduate Certificate — Dec. 2020
- Master of Science (Computer Science) — May 2019
  - Focus: *Computer Networks*
- Bachelor of Science (Computer Science) — May 2018

PROJECTS

Kutztown University

- Collaborated with University IT department on various projects to improve student learning.
- Helped craft grant proposal for NSF *CS4All* grant which was accepted early 2021, with the focus on developing a CS curriculum framework to introduce K-12 students to CS topics. Will be serving on the advisory board and help with running and leading workshops for 6 days in 2022-2023.

KU - Graduate Studies

- Team project to design a network for a fictional university by selecting equipment, designing rooms, subnetting, etc.
- Developed distributed chat server for Linux using **C++** with a multi-process server that kept client records in shared memory.