Shahriyar Shawon

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EDUCATION

Drexel University   Philadelphia, PA
Bachelor of Science in Computer Science   *September 2020 – June 2025*

Concentrations: Operating Systems and Computational Imaging

EXPERIENCE

Susquehanna International Group   Bala Cynwyd, PA
Software Engineer Co Op   *September 2021 – March 2024*

SFG Team   *September 2023 – March 2024*
- Developed a API using C# and .NET to aggregate stock data from 15 MySQL and OracleDB sources, enhancing data cohesion and accuracy of stock data
- Redesigned a web application to utilize a central API, cutting redundant data requests by 93%
- Introduced a caching mechanism to reduce stock information lookup times by 95%
- Implemented a role-based access control system to safeguard privileged data

MDF Metadata Team   *September 2022 – March 2023*
- Built an alerting system using Python and PostgreSQL to monitor file delivery integrity and timeliness, improving data accuracy and operational reliability
- Created a CLI tool to simplify alert setup, reducing configuration time and increasing productivity for developers
- Improved a file-user identification tool by implementing multiple detection methods, leading to more reliable attribution of file usage

CorpSys Team   *September 2021 – August 2022*
- Enriched an internal project management tool by aggregating developer, stakeholder, pipeline, and environment data to improve collaboration and project tracking
- Developed the front-end for an API to allow general-purpose alerts to be created
- Reduced the use of bridge tables in MySQL by implementing Entity Framework ORM queries, resulting in more efficient database operations

PROJECTS

Dynamic Image Compression Engine
- Built firmware for 2 RP2040 chips to interface with FPGA, IO Modules, and Power Monitor Chips
- Implemented custom image format to store lossy and lossless blocks of data using lossy and lossless codecs
- Created desktop app to control camera settings on the fly and log power/data metrics from hardware
- Engineered pipeline to compare software based encoding performance to hardware based encoding

DragonFly3 Auto Connect Script
- Used by the College of Computing and Informatics and students to connect dozens of new Linux systems easily to Drexel's WiFi Network
- Reduced time to connect to Drexel WiFi by 90% by automating creation of a Enterprise WiFi profile
- Replaced a previously completely manual system to a 1-line bash script

Drexel Course Information API
- Built a web scraper to parse information from 8200+ Drexel courses and stored them in a SQLite Database
- Created an API to be able to query for classes based on school, subject, credits, and name
- Enabled users to see the all the prerequisites for classes

SKILLS

Languages: Python, C#, C, C++, Bash/Shell Scripting, HTML/CSS, JavaScript
Databases: MySQL, PostgreSQL, OracleDB, MicrosoftSQL
Frameworks: FastAPI, Django, Flask, BeautifulSoup, .NET Core, .NET Framework, Entity Framework, JQuery,
Tools: Docker, Git, Gitlab CI/CD, Jira, Confluence, CMake, YAML, REST API