

Shahriyar Shawon

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Summary

Recent Computer Science graduate with 18+ months of software engineering experience through Drexel's co-op program. Proven track record of developing APIs, implementing caching solutions that improved system speed by 95%, and creating automation tools adopted by academic institutions. Experienced in full-stack development and embedded systems programming.

Education

Drexel University

Bachelor of Science in Computer Science

Philadelphia, PA

September 2020 – June 2025

Concentrations: Operating Systems and Computational Imaging

Experience

Software Engineer Co Op - SFG

Susquehanna International Group | C#, .NET, OracleDB, MySQL, WPF

Bala Cynwyd, PA

September 2023 – March 2024

- Developed an API to aggregate data from 15 databases to enhance accuracy and cohesiveness for stock information
- Redesigned a web app to use central a API to simplify data sourcing, reducing the number of requests to databases and improving latency
- Introduced a caching mechanism by front-loading requests, significantly reducing the lookup speed of stock information by 95%
- Designed and implemented role based security access system to protect privileged data

Software Engineer Co Op - MDF Metadata

Susquehanna International Group | Python, Django, MySQL, PostgreSQL, Linux

Bala Cynwyd, PA

September 2022 – March 2023

- Developed an alerting system using Python and PostgreSQL to ensure files were received correctly and on time, improving data accuracy and workflow efficiency
- Simplified the process of creating alerts by developing an command line interface, reducing setup time and increasing developer user productivity
- Enhanced the accuracy of a tool for identifying users of internal files by implementing multiple identification methods, leading to more reliable user data

Software Engineer Co Op - CorpSys

Susquehanna International Group | C#, SQL, .NET Framework/Core

Bala Cynwyd, PA

September 2021 – August 2022

- Enriched an internal project management tool by gathering up-to-date information about developers, stakeholders, testing pipelines, environments, and code location, improving team collaboration and project tracking
- Developed the front-end for an API to allow general-purpose alerts to be created, enhancing user notification capabilities
- Reduced the number of bridge tables in MySQL by using Entity Framework ORM to make queries, leading to more efficient database operations and improved application performance

Projects

Dynamic Image Compression Engine | C, Python, RP2040

- 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 | Bash

- Reduced time to connect to Drexel WiFi by 90% by automating creation of a Enterprise WiFi profile and avoiding a previously manual process
- Used by the College of Computing and Informatics and students to connect dozens of new Linux systems easily to Drexel's WiFi Network

Technical Skills

Languages: Python, C#, C, C++, Bash/Shell Scripting, Java, MySQL, OracleDB, HTML/CSS, Javascript

Frameworks: FastAPI, Django, Flask, .NET Core/Framework, Entity Framework, JQuery

Tools: Docker, Git, Gitlab CI/CD, Jira, Confluence