Shahriyar Shawon

267–471–8657 | shahriyarshawon321@gmail.com | linkedin.com/in/shahriyar-shawon/ | github.com/ShahriyarShawon

Education

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

Concentrations: Operating Systems and Computational Imaging
Relevant Coursework: Operating Systems (Linux and Inferno), Concurrent Programming, Computational Photography, Computer Graphics, Machine Learning

Technical Skills

Languages: Python, C#, C, C++, Rust, Java, SQL, Javascript
Frameworks: FastAPI, Django, Flask, .Net Core/Framework, Entity Framework, JQuery

Experience

Susquehanna International Group Bala Cynwyd, PA
Full-Stack Web Developer Co-Op - SFG | C#, .NET, Oracle DB, MySQL, WPF *September 2023 – March 2024*
- Developed a data integration system for 15 OracleDB and MySQL Databases, enhancing accuracy and reliability for stock symbols for a legacy web application rewrite
- Introduced caching mechanism by front loading requests to reduce lookup speed of stock information by 95%
- Designed and implemented role based security access system to protect privileged data
- Redesigned web app to use central API for improved data sourcing flexibility

Susquehanna International Group Bala Cynwyd, PA
Back-End Software Developer Co-Op - MDF Metadata | Python, Django, Linux *September 2022 – March 2023*
- Developed a Service Level Agreement (SLA) violation alerting system to verify files were being received in correct amounts and on time by designing database architecture, and implementing API functionality
- Enriched metric collection for HTCondor jobs by monitoring CPU usage on clusters
- Enhanced accuracy of tool for identifying users of internal files by using multiple methods of identification
- Adapted old MySQL database tables to new architecture to migrate to Postgres

Susquehanna International Group Bala Cynwyd, PA
Full-Stack Web Developer Co-Op - CorpSys | C#, SQL, .Net Framework/Core *September 2021 – August 2022*
- Enriched internal project management tool by gathering up to date information about developers, stakeholders, testing pipelines, environments, and code location
- Created front-end for API to allow general purpose alerts to be created
- Reduced number of bridge tables in MySQL by using Entity Framework ORM to make queries

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 dynamic image format to store lossy and lossless blocks of data using QOI and PNG 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

Chip 8 Emulator | *Rust*
- Modeled Chip 8 CPU as data structure to maintain internal state
- Implemented Fetch-Decode-Execute loop on Chip 8 ROMs
- Created dissassembler to assist in emulator debugging
- Used SDL to visualize video memory contents

Drexel Course Information API | *FastAPI, grequests, BeautifulSoup*
- Asynchronously scraped course information by parsing information from 8200+ Drexel Courses across 175 subjects and 15 departments and stored in SQLite database
- Created API to be able to query for classes based on school, subject, credits, and name
- Enabled users to see the all potential prerequisite paths a student could take to take a class, and see all the classes that require one class as a prerequisite