

# ZOHAIR UL HASAN

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## EDUCATION

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### Drexel University

Bachelor of Science in Computer Science - GPA 3.86

Philadelphia, PA

Sep. 2019 – June 2024

## EXPERIENCE

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### Susquehanna International Group

March 2023 – Sep. 2023

Software Engineering Coop - Corporate Systems

Philadelphia, PA

- Worked on multiple projects leveraging the .NET ecosystem, SQL Server databases, and Elastic APM for logging
- Maintained .NET MVC applications for application inventory management and operational checks, improving information accessibility and application performance monitoring
- Automated IIS log retrieval and database updates in C#, facilitating data visualization on a Grafana dashboard for informed decision-making
- Orchestrated automated testing workflows via a .NET 6 Minimal API app, integrating with GitLab CI/CD and deploying to Kubernetes, pioneering solutions for Windows Authentication challenges inside Linux containers
- Created a web application for automated scheduled communications through Symphony chatbots, streamlining team updates on operational statuses
- Conceptualized and developed a force-directed graph visualization tool using d3.js, facilitating the analysis of our teams application inventory data

### SAP America

March 2021 – March 2023

Software Engineering Coop - Artificial Intelligence

Philadelphia, PA

- Contributed to an open-source ML platform (ML Lab [github.com/SAP/machine-learning-lab](https://github.com/SAP/machine-learning-lab)) that acts as a centralized hub for development teams to seamlessly develop, build, deploy, & operate ML solutions at scale
- Seamlessly integrated an open-source solution, ML Flow, into ML Lab for tracking parameters, metrics & artifacts for each run using Python, FastAPI & React
- Developed a Job Scheduler component that ran user specified jobs on a repeated schedule by parsing a cron string

Software Engineering Coop - Production Management Portals

- Developed a webapp with a vanilla JavaScript front-end and Node.js backend, along with a Terraform Provider written in Go, to report virtual machine usage to SAP's internal auditing system
- Enhanced app reliability and scalability by deploying it via Docker and Kubernetes
- Automated CI/CD workflows using Jenkins pipelines for both the webapp and Terraform Provider
- Created a private Terraform registry for simplified Provider installation and wrote Terraform modules to improve employee productivity

### Drexel College of Computing and Informatics

April 2021 – Present

Teacher Assistant

Philadelphia, PA

- Created and sold a program designed to improve grading efficiency by a factor of 20 for \$500
- Conducted regular office hours to clarify complex Computer Science concepts for students and graded homework

## PROJECTS

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### Drexel Scheduler | [scheduler.zohair.dev](https://scheduler.zohair.dev) | GitHub

Feb 2023 – Present

- Developed a Python web scraper to autonomously fetch Drexel's course catalog and professor ratings from RateMyProfessors; data stored in a PostgreSQL database
- Created a Grafana dashboard with a user-friendly interface, allowing students to efficiently find electives by filtering and sorting instructor ratings and course data; achieving over 300 active users as measured by Google Analytics
- Hosted the application on a Kubernetes cluster using DigitalOcean's managed service, ensuring high availability and scalability
- Automated the CI/CD pipeline with GitHub Actions, reducing deployment time by 50%
- Implemented security best practices to protect sensitive data and ensure the integrity of the system

## TECHNICAL SKILLS

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**Languages:** Python, C#, JavaScript, SQL

**Tools & Frameworks:** .NET, Express.js, FastAPI, React, Docker, Kubernetes, Helm, Terraform, GitLab CI/CD, Git