Sadiq A. Shaik

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Competencies: Fullstack Website Development, Cloud Computing (AWS), Artificial Intelligence

EDUCATION

University of Pennsylvania
Aug. 2022 – current
GPA: 3.95 / 4.00

- *Masters in Computers and Information Technology*
- Graduating in Spring 2024.
- *Courses: Discrete Mathematics (A) • Data Structures and Software Design (A) • Algorithms & Computation (A) • Introduction to Computer Systems (A-/**TA**) • Computer Systems, Memory, and OS (A)*

Duquesne University, Pittsburgh
Aug. 2014 – May 2018
GPA: 3.71 / 4.00

- *Bachelor of Science in Biochemistry*
- Graduated cum laude as Honor's College student; Dean's List all years; Laval merit scholarship; Honors Thesis

WORK EXPERIENCE (Note: Is US Citizen)

University of Pennsylvania
Aug. 2023 - current

Teaching Assistant for CIT 5930 – Introduction to Computer Systems

- Created new, interactive lecture slides on Sequential Logic Gates and Assembly. Demonstrated circuits using CircuitLab and walked through the underlying Assembly code of C.
- Presented lecture material on Computer Systems which went over Circuits, Logic Gates, Data Path, Assembly, the C Language, and Dynamic Memory Allocation.
- Answers student questions on online forum (EdDiscussion) or through office hours via Zoom.

WuXi Advanced Therapies
Oct. 2018 – Dec. 2020

Manufacturing Associate I & II

- Brought on as a ProClinical contractor, hired as Manufacturing Associate I, promoted to Manufacturing Associate II.
- Trained ~30 associates, independently performed ~300 manufacturing runs, troubleshooting problems in processes and enabled noticeable cost savings. Led teams of 3-5 associates in manufacturing personalized cancer treatments.
- Visual Basic & Excel to process gigabytes of supply chain data; automated defect detection and presented to management
- Key role in collaborating with clients and incorporating feedback into 10 new process documentations
- Led cross-functional efforts with Tech Ops, Environmental Management, IT, EHS, Metrology, and Facilities.

PROJECTS (https://github.com/sqshaik)

- **Django Database System:** Created manufacturing database system to solve inventory issues for WuXi Advanced Therapeutics. Uses Python/Django/SQL.
- **Fullstack Website for University of Houston**:
  - Created a web portal that takes user-inputted forms to generate a pdf report. This is integrated with the University of Houston PHP backend to populate their databases.
  - *Languages/Technologies Used: JavaScript, HTML/CSS, PHP, Apache, MySQL, Linux*
- **Data Restore AWS Project**:
  - Worked with a team to complete an online AWS challenge where we built an AWS pipeline that automates data recovery and backups.
  - Used AWS Cloud Development Kit (CDK) to generate a Cloud Formation Template (CFT) that automatically provisions the necessary resources for storing CSV in an S3 bucket, populating a PostgreSQL RDS with CSV data, backing up PostgreSQL data to S3 in batches using Lambdas, exporting again from S3 to DynamoDB, and more. CronTabs were also used for automation of backup.
  - *Languages/Technologies Used: AWS CDK, SDK, CLI, S3, EC2, API Gateway, Lambda, PostgreSQL DB, DynamoDB*
- **CIT5940 Covid Java Project**:
  - Used N-tier architecture model to create Command-line program that parses CSV or JSON data sets on 2021 Covid, Properties, and Populations data in and around Pennsylvania. Based on user prompting, this program is able to process the data and output the user-requested information.
- **Motion Sensing Camera:** Used OpenCV library to detect webcam motion. Created interactive graph of motion using Bokeh.

SKILLS

- **Software Languages:** Python, Java, C, SQL (MySQL, PostgreSQL), HTML, CSS, JavaScript (React.js, D3.js), R
- **Technologies:** AWS services, AWS CDK, AWS SDK, Jupyter Notebooks, Panda, Numpy, ggplots, Blender
- **Professional Certifications:** AWS Certified Cloud Practitioner
- **Course-for-Credit Certifications:** (1) CS50's Intro to CS [Harvard] (2) Computing in Python I-IV [Georgia Tech] (3) Intro to Object-Oriented Programming with Java I-III [Georgia Tech] (4) Data Structures & Algorithms I-IV (Georgia Tech) 5) Understanding and Visualizing Data with Python (6). Introduction to Biostats Bootcamp