

AISHWARYE OMER

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EDUCATION

Pennsylvania State University, Harrisburg, Middletown, PA

Master of Science in Engineering, Computer and Information Science, May 2021

GPA: 3.56 / 4.00

Nirma University, Institute of Technology, Ahmedabad, India

Bachelor of Technology, Computer Engineering, May 2017

CPI: 7.7 / 10.00

EXPERIENCE

Teaching Assistant, Compiler Design and Discrete Mathematics, Penn State Harrisburg **August 2019 - Present**

- Developed solution sets for the coding assignments and graded the former course consisting of 40 and 46 students respectively.

Software Dev. Engineer in Automation, United Automation and Services, New Delhi, India **July 2017 - May 2019**

- Involved in development of software for DCS, HM1, and other instruments used in 500TPH CFBC BOILER, ES& EBWFP related to Power Plant at M/s. Reliance Utility Power Ltd., Hazira, Gujarat.
- Developed a code to minimize lag between temperature sensors used in CFBC Boiler used in generation of Thermal Power and integrate third party application into the hardware.
- Applied sharp troubleshooting tools towards executing testing, debugging defects, (EMC, signal integrity, thermal, mechanical, electric, vibrational, Power and manufacturing issues) tracking failures through to resolution, and data.

Software Dev. Intern, Reliance Industries Ltd., Gujarat, India **January 2017 - May 2017**

- Responsible for building a prototype for a new Warehouse Inventory Management, from gathering requirements to delivering final code at the end of the semester.
- Designed a MVC model. Used PHP for backend code and PostgreSQL for database. Used Postman API to mock requests to server and record and analyze the efficiency of connection. Used JavaFX to develop a user interface. Responsible for Threat Modeling, Secure Code Review, Risk Analysis, Design and/or Architecture Reviews.
- This project was also my Senior Year major project for which I got A grade.

TECHNICAL SKILLS

Languages: Java, SQL, C++, Ruby, Javascript, HTML, CSS **Technologies:** Ruby on Rails, AWS **Databases:** MySQL

PROJECTS

AVD-Pipeline: As a course project for Distributed Systems, created a pipeline based architecture using client-server and partial P2P network in C. Developed a symmetric key encryption application using OpenSSL and arithmetic operations application to provide proof of concept for the pipeline. Wrote a logger to keep track of operations on each stage.

Deployed the code on Azure

(Team of 2, Spring 2020)

Hacker-mania: As a course project for Secure Programming, developed a password cracking system to guess and crack passwords of Penn State students. Manipulated common passwords by finding a pattern. Using SQL injection and XSS, broke down safety of other team's website. Cracked 4000 passwords. Ended up in top 5 out of total 24 teams.

(Team of 2, Fall 2019)

Password Vault: Developed a multi user Password Vault system to store username and password in an encrypted format. Used Certificate Validation, RSA encryption to bind the Symmetric key and used Symmetric key to encrypt and decrypt the username and passwords. Safe from top 25 most serious software errors as listed by CWE.

(Fall 2019)

Object Oriented Prog. using Assembly Language: Wrote an assembly code for 8086 explaining Polymorphism, Multi-Level Inheritance, creating and destroying objects and allocating memory.

(Fall 2016)

Social Networking Website using ROR: The project used Ruby 4.6 as base. Used public_activity for activity tracking of Active Record and Mongoid 3 models. Used RSpec to create test driven development. Used Devise Gem for authentication and security. Deployed using Heroku.

(Fall 2016)

EXTRACURRICULAR ACTIVITIES

Limca Book of Records Quiz, Gold Medal Winner - 2011: National Winner of 2011 Limca book of records quiz conducted by Coca Cola.

(Team of 2)

Heritage India Quiz, Winner - 2010: National Winner of 2010 Heritage India Quiz conducted by Ministry of Education, Government of India.

(Team of 2)

Dhirubhai Ambani Scholarship, 2010 - 2012: Awarded Dhirubhai Ambani Scholarship for 3 years for outstanding performance in High School amongst 10,000 students.