

# ROOSEVELT SCAGGS

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## EDUCATION

Princeton University

May 2024

B.S.E. Computer Science (Cumulative Undergraduate GPA: 3.644)

**Relevant Coursework:** Distributed Systems, Algorithms and Data Structures, Advanced Programming Techniques, Information Security, Information Technology & Public Policy

## EXPERIENCE

Advanced Programming Techniques Grader, Princeton University

December 2022 - Present

- Tests and critiques student software engineering projects for security vulnerabilities, bugs, and performance.

Lead Full Stack Web Developer (Contracted), Trenton Health Team

February 2022 - August 2023

**Main Project:** Mercer County Free Food Finder — <https://rooseveltschaggs.com/projects/mercer-food-finder>

- Designed and developed web application using **Python (Flask + SQLAlchemy)**, **HTML**, **CSS**, and **Javascript**.
- Deployed and managed application on Heroku cloud platform, setup **CI/CD pipeline**, and configured **Google API**.
- Met weekly with THT stakeholders to gather app requirements and showcase implemented features for feedback.
- Increased site traffic by over 400% by creating promotional video content demonstrating application features.

Full Stack Software Engineer and Computer Repair Technician, BWISE

January 2015 - July 2021

- Developed web app with event scheduling and donation management features using **React** and **Flask**.
- Developed containerized applications using **Docker** enabling rapid application deployment & updates.
- Developed CI/CD pipelines with **Jenkins + GitLab** to automate build and deployment of **Docker** containers.
- Configured **Kubernetes** clusters for container orchestration ensuring high availability and scalability.

Consulting Intern, Accenture

June 2019 - August 2019

**Main Project:** AWS EC2 Cost Optimizer — <https://rooseveltschaggs.com/projects/aws-cost-optimizer>

- Reduced analysis time by 75% by developing a database application to automatically analyze usage data, offer suggestions for optimizing cloud costs, and generate savings reports — developed using **Java**, **VBA**, and **SQL**.
- Aided cloud migration project by updating firewall rules to be applied to **AWS EC2** instances.

## PROJECTS & RESEARCH

**ANTI-HERO: Cost Optimized Distributed System** — **Project Page:** <https://rooseveltschaggs.com/projects/anti-hero>

- Implemented interconnecting **Flask** REST APIs and a **Python** client for configuring and testing the system.
- Designed & ran automated experiments for testing system throughput and latency with simulated failures.
- Currently designing live monitoring dashboard with live analytics views using **D3.js** and **Three.js**

**MAINFRAME Classic/Pro** — **Project Page + Demo:** <https://rooseveltschaggs.com/projects/mainframe-pro>

- Classic Version: Developed a student information system using **React**, **.NET Core API (C#)**, **MSSQL**, and **IIS**.
- Pro Version: Revamped MAINFRAME Classic using **Angular**, **Express.js**, **PostgreSQL**, and **Nginx**.

**My Housing Upgraded** — **Project Page + Demo:** <https://rooseveltschaggs.com/projects/my-housing>

- Developed housing management web app with responsive UI and realtime interactivity via **Websockets**.

## SKILLS

- **Languages:** Typescript/Javascript, C, C#, Python, Java, HTML, CSS, SQL, Swift, Go
- **Frameworks/Libraries:** React, Redux, Angular, RxJS, .NET Core, Flask, Django, Node.js, Express, Three.js, D3.js
- **Tools:** Git, Linux, AWS, Jenkins, Nginx, ESXI, MSSQL, PostgreSQL, VS Code, Xcode, Bash, Docker, Kubernetes