

# Sunil M. Rosen

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Github: [github.com/sunilrosen/](https://github.com/sunilrosen/)

## EDUCATION

### Georgetown University

B.S Computer Science • B.A Economics • 3.92/4.00 GPA

August 2022 – May 2026

Washington, D.C

**Relevant Coursework:** Data Structures • Mathematical Methods • Advanced Programming • Multivariable Calculus • Computational Structures  
Artificial Intelligence • Computational Analysis of Big Data • Artificial Neural Networks and Deep Learning • Tech, Ethics and Society

## WORK EXPERIENCE

### Acquia

Software Engineering Intern

June 2024 – August 2024

Boston, MA

- Collaborated closely with an **Agile Scrum** team to deliver product increments using **Go, Kubernetes, Docker, and AWS services**, completing a full release cycle from testing in a development environment to deploying in a production environment
- Removed apache-exporter for customers running PHP 8.1+ due to newly added support for the PHP-FPM status page, **reducing production footprint by over 142 vCPUs & 830GB of Memory**
- Implemented tooling to increase minReplicas in a **Kubernetes** rollout, unlocking increased capabilities for high traffic customers that range up to over **100 pods**
- Reconfigured an API** to automatically upsize customers, providing a foundation for product expansion and increasing efficiency within the engineering team

### Hoya Developers

Software Engineering Intern(1 of 50 inaugural members)

August 2023 – Present

Washington, D.C

- Worked on the development of a website for Map Collective, a project focused on using **AI-driven data** to track intricate geographical emissions data throughout supply chains
- Contribute to the creation of a user-friendly interface with **Figma** and a **React** framework, creating **20+ toolkits and dashboards**

### Beth Israel Deaconess Medical Center

Research Assistant

April 2022 – August 2022

Boston, MA

- Constructed an **image processing program** using **Python** for BIDMC pathologists to adjust the gradient in tissue slides of Eosin, a pink dye used to highlight proteins and tissue, and Hematoxylin, a purple dye used to highlight nuclei

## PROJECTS

### HomeBudget

October 2024

- Created HomeBudget, a personal expenses tracking web application using a **React framework**, enabling users to manage multiple budgets and track expenses easily
- Designed and implemented key features such as **multiple budget management, expense tracking, and detailed budget overviews**, with a focus on delivering a user-friendly experience

### Neural Network Tom and Jerry Image Classification

September 2024

- Built a Image Classification model for a dataset of images of the cartoon show “Tom and Jerry” using a **DenseNet121-based CNN**, achieving **91% test accuracy** and **98% training accuracy** in categorizing images into ones that contain Tom, Jerry, both, or neither
- Utilized a robust training pipeline with early stopping, data preprocessing, and performance evaluation using **Sparse Categorical Crossentropy loss** and **Adam optimizer**, resulting in detailed accuracy and loss visualizations

### Sunil's ChatBot

June 2024

- Developed Sunil's Chatbot, a user-friendly application that utilizes the **OpenAI API** for its GPT-3.5-Turbo model as well as **Streamlit** for the interface to facilitate engaging AI conversations with customizable Settings
- Implemented features such as conversation history, **adjustable token limits**, and **temperature settings**, enhancing user interaction and allowing for a personalized chat experience

## CERTIFICATIONS/AWARDS

### Amazon Web Services(AWS) Certified Developer Associate

July 2024

- Demonstrated expertise in developing, deploying, and debugging cloud-based applications using **Amazon Web Services**, leveraging key services such as AWS Lambda, DynamoDB, and API Gateway

### George F. Baker Scholar – Georgetown University

April 2024

- Selected as 1 of 9 students annually for exceptional academic performance and leadership potential, with an emphasis on applying technology and data-driven solutions to business and societal challenges

## SKILLS

- Programming Languages:** C++, Python, Go, Javascript, HTML, CSS
- Frameworks/Tools:** Node.js, React.js, TensorFlow, React Native, Visual Studio Code, Figma, Github, Jenkins, CI/CD, Streamlit
- Cloud Infrastructure:** Kubernetes, Docker, Amazon Web Services(AWS), Git/Version Control