Sunil M. Rosen

94 Redwood Rd, Newton, MA, 02459 - 617-893-6292 - smr334@georgetown.edu

Portfolio: https://sunilrosen.github.io/sunil-portfolio-website/ LinkedIn: linkedIn: https://sunilrosen.github.io/sunil-portfolio-website/

EDUCATION

Georgetown University

B.S Computer Science • B.A Economics • 3.91/4.00 GPA

DIS Study Abroad Copenhagen • Concentration in Artificial Intelligence

Washington, D.C. August 2022 – May 2026

August 2024 – December 2024

WORK EXPERIENCE

Students of Georgetown Inc. (The Corp)

Chief Executive Officer and President

Washington, D.C

January 2025 - Present

- The Corp is the largest student-run nonprofit organization in the world, employing 300+ students and driving upwards of \$5MM in annual revenue with 7 on-campus retail services and 4 internal departments
- Manages a team of 11 service directors and 6 horizontal board members to direct company mission, strategy, and implementation
- Leads the strategic direction of company operations focusing on profitability, philanthropy, community engagement, and professional development

Director of Purchasing, Vital Vittles

March 2023 - March 2024

August 2022 – Present

Cashier, Vital Vittles

Acquia Boston, MA

Software Engineering Intern

June 2024 – August 2024

- Improved workflow for high traffic customers that use up to 100+ pods by implementing tooling to increase minReplicas in a Kubernetes rollout
- 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
- Reduced engineering toiling and provided foundation to expand product by allowing an API to upsize customer automatically

Hoya Developers Washington, D.C.

Software Engineering Intern (1 of 50 inaugural members)

August 2023 - Present

- Created a user-friendly website for Map Collective, a project focused on using AI-driven data to track intricate geographical emissions data throughout supply chains
- Designed and implemented over 10 modern toolkits and interactive dashboards using Figma, JavaScript, and React
- Attended and lead weekly clubwide lectures on diverse programming topics, including C++, Python, HTML/CSS, and more, to enhance collaborative learning and technical skills

RECENT TECHNICAL PROJECTS

ParlAId: A Machine Learning NBA Parlay Builder

December 2024

- Created a machine learning model leveraging correlations in player and team performance metrics to optimize over/under NBA parlay bets, using data from 2023-24 and 2024-25 seasons scraped via The Odds API and Basketball Reference
- Preprocessed data with one-hot encoding for players and teams, combined contextual game and player stats into unified vectors, and utilized TensorFlow and PyTorch for model training and evaluation
- Built a full-stack web application integrating Python, Flask, and SQLite for our backend, with React and TypeScript as our frontend

WikiNews Search Engine October 202

- Developed a Retrieval-Augmented Generation (RAG) pipeline integrating Wikipedia and NewsAPI data to create a comprehensive knowledge base for accurate and context-rich LLM responses
- Implemented FAISS-based vector search using HuggingFace and LangChain to embed, index, and retrieve relevant documents from combined static and real-time data sources
- Optimized LLM-driven query answering by constructing dynamic prompts with retrieved content and deploying a lightweight model using Transformers and PyTorch for efficient text generation

CERTIFICATIONS/AWARDS

Amazon Web Services Certified Developer Associate: 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: 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/INTERESTS

Programming Languages: C++, Python, Go, HTML, CSS, Git

Python Packages: Pandas, Numpy, TensorFlow, Keras, Matplotlib, PyTorch, BeautifulSoup, Scikit-learn

Cloud Infrastructure: Kubernetes, Docker, Amazon Web Services (AWS)

Interests: Basketball (Georgetown Club Basketball Team), Dining (ranked ~500 restaurants), Traveling, Chess, Skiing, Cooking