

Carl K. Freyer

(203) - 962 - 2733 | Ckfreyer@gmail.com | [linkedin.com/in/carl-k-freyer/](https://www.linkedin.com/in/carl-k-freyer/)

Education

Lehigh University

Computer Science & Business / BS

Mass Communications / Minor

GPA: 3.98

Bethlehem, PA

Aug 2021 – Jan 2025

- Relevant Coursework: Intro to Data Science (R), Database Systems Algorithms and Applications (Oracle SQL), Principles of Parallel Computing (C/C++), Fundamentals of Internetworking, and Network Security.
- Activities: Vice President of Development at the Computer Science and Business Association, Data & Graphics Editor at the Brown and White, and Rossin Junior Fellow.

Work Experience

Major League Baseball Advanced Media

New York, New York

Software Engineering Intern – Media Engineering Team

June 2024 – Aug 2024

- Increased team velocity on production level pipeline orchestration and dynamic ad insertion programs with 15+ tickets in an agile-scrum environment using Git and Jira.
- Unlocked a new revenue stream for the sales department through new Java/Spring Boot & PostgreSQL API endpoints to schedule video slates in Google Ad Manager (GAM).
- Increased developer efficiency and contributed to nine nines reliability through new Terraform modules that simplify Google Cloud Platform (GCP) pub/sub modules.
- Improved data resiliency through double automated backup system with Cloud Functions on Google Cloud Platform using Terraform deployed using git and CI/CD principles.

Major League Baseball Advanced Media

New York, New York

Software Engineering Intern – Media Engineering Team

June 2023 – Aug 2023

- Unlocked new MLB.tv customer features through a new full stack application with git, JavaScript/React, Java/Spring Boot, and PostgreSQL.
- Improved stream pipeline reliability and readability with new full stack application to view logs, configuration, and status created using git, JavaScript/React, Java/Spring Boot, and PostgreSQL.

Project Experience

TRAC Writing Program Website

Bethlehem, PA

Lead Software Developer

Jan 2024 – Dec 2024

- Improved program visibility through new ground up website with JavaScript, Python/Flask, MySQL designed with program director in an agile scrum environment following a minimum viable product design principle.
- Increased student feedback visibility through REST API survey ingestion and publication with Chart.js behind a secure login for individual students and in aggregate for the public.
- Utilized database schema to create a webpage that displays all students in the program, allows for filtering, sorting, and supports fuzzy search on filters.
- Achieved usage by 99% of permitted users through natural user information forms & menus and efficient backend & database ingestion.

Introduction to Parallel Programming (CSE 375)

Bethlehem, PA

Student Researcher

Jan 2024 – May 2024

- Achieved greater than 30x speedup using a parallel, memoized version of K-means in C/C++ with TBB.
- Created a novel implementation of Cuckoo hashing that had 10x speedup over serial implementations.
- Wrote a paper that improved parallelized B+ Trees using bundled historical references for synchronization.

Relevant Skills

Languages: Java, Spring Boot, C/C++, Python, JavaScript, TypeScript, React, CSS, HTML, JSON, YAML, SQL, and R.

Technologies: Git, Jira, GCP, AWS, Maven, NodeJS, Figma, Linux, Unix, Windows, Jenkins, CI/CD, and Datadog.

Other: Scrum, Agile, Leadership, Communication, Writing, REST API Development, and Rugby Player.