# Sam Flattery

Software Engineer

412-759-7626 | samflattery@gmail.com | samflattery | samflattery

## Work Experience

### Google
*Sunnyvale, CA*

Software Engineer III
*Oct. 2023 - Present*

- TODO: CAALM

### Google
*Sunnyvale, CA*

Software Engineer II
*Sep. 2022 - Oct. 2023*

- TODO: Rejection Pages

### Google
*Ireland (Remote)*

Software Engineering Intern
*May. 2021 - Aug. 2021*

- Worked on the SafetyNet Attestation API, an anti-abuse platform written in C++ which assesses device side integrity on Android devices
- Designed and implemented a principled way to process device information and produce a new integrity verdict for a new class of device
- Extended the system that calculates preexisting integrity verdicts to make it more configurable, scalable and easier to debug
- This new system is on the critical path to assessing over 1 billion devices daily

### Google
*Ireland (Remote)*

Software Engineering Intern
*May. 2020 - Aug. 2020*

- Created a randomized testing system for Envoy, an open source L7 proxy
- Implemented an abstract state tracker that maintained the correct state of the system to ensure updates were properly processed after executing the randomized input
- Fixed two logical bugs in Envoy's implementation found through this testing method
- Increased coverage over key files by more than 40%

## Education

### Carnegie Mellon University
*Pittsburgh, PA*

B.S. in Computer Science, Concentration in Computer Systems
*Aug 2018 - May 2022*

- Cum. GPA: **3.91 / 4.00** (Dean's List, High Honors F18, S19, F20, S21, S22)
- Selected courses:

**15-410** Operating Systems
**15-440** Distributed Systems
**15-418** Parallel Computer Architecture
**15-451** Algorithm Design & Analysis
**15-281** Artificial Intelligence
**15-445** Database Systems

## Projects

### The Atlas Project
*Pittsburgh, PA*

Software Lead
*Aug. 2019 - May 2021*

- Managed the software team developing a fully autonomous gravity-powered vehicle
- Presented weekly briefings on software progress to the organization and assigned tasks to team members
- Integrated deep learning semantic segmentation into the vehicle's control mechanism

### iOS App - FCE++
*May. 2019 - Aug. 2019*

- Created an iOS app on which students can view CMU's course information and ask questions about courses
- Utilized the Parse Platform API and HTTP requests to manage a server-side database
- Compiled data from CMU's CSV of course data to JSON format using Python's Pandas, CSV and JSON modules

## Skills

- **Programming Languages:** Java, C++17, C, Python, Swift