Isabel Suizo

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Education

Carnegie Mellon University **August 2023 – Present**
PhD in Computer Science *Pittsburgh, PA*

University of California, San Diego **September 2018 – June 2022**
BS in Computer Engineering, Minor in Economics *La Jolla, CA*
Honors: summa cum laude, ECE department's highest distinction, GPA: 3.993/4.0

Honors & Awards

- Graduate Cohort for Inclusion, Diversity, Equity, Accessibility, and Leadership Skills (April 2024)
- Summa Cum Laude (June 2022)
- St. Ignatius Outstanding Service Award (June 2022)
- Highest Distinction in ECE Department (June 2022)
- ECE Henry Booker Award (June 2022)
- Provost's Honors (September 2018 - June 2022)

Research Experience

Carnegie Mellon University **August 2023 – Present**
Graduate Student Researcher *Pittsburgh, PA*

- Advised by Justine Sherry and Theo Benson.
- Conducting large-scale measurement study of Starlink networks to understand unique routing dynamics of LEO systems to motivate future deployment and infrastructure decisions.
- Analyzing relationship between socioeconomic factors like regional population/wealth and Starlink users' quality of experience based on custom simulations and real-world data.
- Collaborating on designing system to identify the network settings that cause diverse CCAs to inflict high harm on one another using a genetic algorithm and custom testbed.

University of California, San Diego **February 2021 – August 2022**
Undergraduate Researcher *La Jolla, CA*

- Advised by Geoffrey Voelker and Ariana Mirian.
- Completed undergraduate thesis, "Excavating Device Characteristics: Identifying User Behaviors via Network Traffic Flows" to measure the efficacy of common security practices. Designed ML model that achieved 99% testing accuracy in identifying IoT vs. non-IoT devices using features extracted solely from anonymized network traffic.
- Researched and identified mitigations for over 400 vulnerabilities to contribute to research project regarding system administrators' likelihood to fix vulnerabilities.
- Improved error logging system on data ingestion servers.

Publications

A First Look at Starlink's Impact on Internet Access Equity (Policy Version) **TPRC '25**
Isabel Suizo, David Andersen, Theophilus Benson, Justine Sherry

A First Look at Starlink's Impact on Internet Access Equity **Under submission**
Isabel Suizo, David Andersen, Theophilus Benson, Justine Sherry

When Congestion Control Algorithms Collide: The Convergence Conundrum **Under submission**
Ranysha Ware, **Isabel Suizo**, Srinivasan Seshan, Justine Sherry

Excavating Device Characteristics: Identifying User Behaviors via Network Traffic Flows **B.S. Thesis '22**
Isabel Suizo, Ariana Mirian, Geoff Voelker

Work Experience

Google Cloud | *Software Engineer* **August 2022 – August 2023**

- Designed and implemented a schema-agnostic ingestion feature to streamline the data ingestion process for recommendation and search models used in customers' e-commerce sites.
- Contributed to development of Generative App Builder, a new Cloud tool that allows customers to integrate Google LLMs into generic websites using customer-specified data.
- Ensured high availability of Retail services through on-call duties including fixing production server issues and rolling out scheduled releases.

Nextdoor | *Software Engineering Intern* **June 2021 – September 2021**

- Decreased process scaling workflow time by 93% by implementing dynamic scaling of asynchronous infrastructure tasks.
- Fortified security of users on Nextdoor app by building pipeline for Trust and Safety team using a third-party service for link verification of URLs posted on the platform.

Nutanix | *Software Engineering Intern* **June 2020 – September 2020**

- Increased velocity through robust automation for testing new disaster recovery services and UI features using backend API calls and Selenium.
- Reduced storage costs for customers by implementing ML pipeline for migrating cold data to secondary storage.

Teaching Experience

Teaching Assistant **January 2021 – June 2022**

Computer Science Department *University of California, San Diego*

- Tutored theory-based, upper-division algorithms (CSE 101) for four quarters. Hosted weekly open-forum office hours and one-on-one sessions. Graded homework and exams. Monitored and responded to inquiries on online class forum, Piazza. Received 100% recommendation rate from students across reviews from 4 quarters.
- Tutored data structures and algorithms course (CSE 100) in C++ for one quarter. Assisted students with weekly programming assignments for five hours per week.

Service

REUSE Mentor **June 2025 – Present**

Computer Science Department, Carnegie Mellon *Pittsburgh, PA*

- Mentor student in Research Experiences for Undergraduates in Software Engineering (REUSE) Program.
- Guide student through summer project using genetic algorithms to automatically identify network settings that cause congestion control algorithms to be unfair to one another.

Women&NB in CSD Co-Organizer **August 2023 – Present**

Computer Science Department, Carnegie Mellon *Pittsburgh, PA*

- Organize lunches for 15-20 women and non-binary PhD students in computer science for community-building.
- Plan welcome events for incoming/prospective women and non-binary students to meet students and faculty at Carnegie Mellon.

Mentor **September 2020 – June 2021**

EDGE Program, UC San Diego *San Diego, CA*

- Conducted workshops for both technical and soft skills for local high school girls interested in pursuing a degree in computer engineering.
- Met regularly with mentee over the course of a year to guide with college application process.