Emmanuel Suárez Acevedo

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Research Interests

Programming languages, type systems, formal methods, functional programming, computer science education

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Education

University of Pennsylvania School of Engineering and Applied Science   **Philadelphia, PA**
Candidate for an MSE in Computer and Information Science   *May 2024*

University of Pennsylvania School of Engineering and Applied Science   **Philadelphia, PA**
BSE with Honors in Computer and Information Science   *May 2019*
Courses: Advanced Topics in Programming Languages, Computer Aided Verification, Compilers and Interpreters, Operating Systems, Computer Graphics, Software Foundations, Analysis of Algorithms, Computer Architecture

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Experience

Senior Software Engineer   **San Francisco, CA**
Strava   *August 2019 – July 2022*
  * Designed a new core system to model different types of activities
  * Mentored junior engineers in microservice architecture and Scala programming
  * Used Apache Spark to build a geospatial data export tool for Strava Metro customers
  * Built tools to verify and ensure correctness of internal route data
  * Developed a Scala microservice to serve all static maps in product

Undergraduate Researcher   **Philadelphia, PA**
University of Pennsylvania   *January 2017 – May 2017*
  * Worked on a proposal for an extension to the Glasgow Haskell Compiler which would allow binding existential type variables to data constructors in patterns, advised by Prof. Stephanie Weirich

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Teaching

Teaching Assistant   **Heights Philadelphia**
Computer Science   *July 2023 – Present*
  * Assist with in-class exercises introducing computer science to middle school students from underrepresented backgrounds in STEM

Teaching Assistant   **University of Pennsylvania**
CIS 5520: Advanced Programming   *August 2022 – December 2022*
  * Assist with in-class discussion and cooperative exercises centered around functional programming patterns in the Haskell programming language
  * Advise student groups on a final project of their choosing in Haskell showcasing the material covered over the course of the semester

Head Teaching Assistant   **University of Pennsylvania**
CIS 120: Programming Languages & Techniques I   *August 2016 – May 2019*
  * Co-lead and prepare a weekly recitation to review course material on core programming languages and techniques, taught in OCaml and then Java
  * Hire and train new teaching assistants

Skills

Languages: Agda, Haskell, Scala, OCaml, Java, Coq, Ruby, C/C++, Rust, Swift
General: Git, Rails, Apache Spark, Cassandra, MySQL, iOS, LaTeX, React, Fluent in Spanish

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Diversity, Equity, and Inclusion

Anti-racism Lead
San Francisco, CA
Tech Brand and Diversity Group, Strava
September 2020 – June 2022
* Meet biweekly with a small group in the technology organization to discuss initiatives that could be taken both at large and within the technology organization itself to support diversity, equity, and inclusion, with a focus on anti-racism

Director of Finance
San Francisco, CA
The Percentage Project, Inc.
November 2019 – June 2020
* Kickstarted financial and accounting systems for nonprofit organization dedicated to helping every person of every background embrace their diversity and feel a sense of belonging in the field that they pursue

CIS Diversity Summit Organizer
Philadelphia, PA
University of Pennsylvania
Aug 2018 – May 2019
* Collaborate in organizing a summit bringing together all members of the computer and information science community to determine how to work together to create a more diverse, inclusive, and supportive environment

VP of Finance
Philadelphia, PA
Society of Hispanic Professional Engineers, University of Pennsylvania Chapter
May 2016 – May 2019
* Fundraise and organize bringing student members to the SHPE National conference

Chapter Founder and Vice President
Dorado, Puerto Rico
Society of Hispanic Professional Engineers Jr., Dorado Academy Chapter
May 2013 – May 2015
* Founded and organized a SHPE Jr. chapter, promoting Puerto Rican representation and excellence in STEM