# **Emmanuel Suárez Acevedo**

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#### Education

## University of Pennsylvania School of Engineering and Applied Science

Philadelphia, PA

BSE in Computer and Information Science, Minor in Mathematics

May 2019

**Courses**: Compilers and Interpreters, Operating Systems, Computer Graphics, Software Foundations, Analysis of Algorithms, Software Design / Engineering, Computer Organization and Design, Computer Architecture

Activities: Society of Hispanic and Professional Engineers (SHPE) Vice President of Finance

## Experience

Strava

## Software Engineering Intern, iOS

San Francisco, CA

June 2018 – August 2018

\* Worked on the company wide rebranding of Strava Premium to Strava Summit

- \* Modularized related code into an easy-to-use framework
- \* Identified and fixed critical bugs in a timely manner

## **Head Teaching Assistant**

Philadelphia, PA

August 2016 – Present

CIS 120: Programming Languages & Techniques I

- \* Hire and train new teaching assistants
- \* Co-lead and prepare a weekly recitation

## **Projects**

## **Quaker OAT Compiler**

A complete compiler written in OCaml from a high-level, type safe imperative language (OAT) to LLVM and from LLVM to x86

#### Time2Assemble

An iOS app written in Swift for finding a time for a group to assemble, featuring a dashboard allowing the user to create an event and invite other users to fill out their availability to determine a final meeting time

## **PennOS**

A Unix-based operating system written in C, featuring a scheduler for running threads, a flat file system, and user shell interactions

## HaXtal

A web / GUI application written in Haskell that generates fractals defined using L-Systems, includes a random L-System generator for defining random fractals

#### Penn Hernia Risk Calculator

A survey app written in Swift that uses research data to determine a patient's risk of getting a postoperative hernia

#### Research

## Binding existential type variables in Haskell

An extension for the Glasgow Haskell Compiler (GHC) that allows users to bind existential variables to data constructors in patterns

#### Skills

Languages: Java, OCaml, Swift, Python, Haskell, C, C++, Rust, Objective-C, Javascript, Coq

General: Git, iOS, Linux, LaTeX, Android, OpenGL, Subversion, Firebase, Agile, Arduino, React, Fluent in Spanish