# 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

**Software Engineering Intern, iOS** **San Francisco, CA**
Strava *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**
CIS 120: Programming Languages & Techniques I *August 2016 – Present*

* 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 meetinng 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