

Education

University of Pennsylvania
Pursuing **B.S.E.** and **M.S.E.** in **Computer Science**

August 2013 - May 2017

Recent Coursework:

<i>Internet and Web Systems (CIS 555)</i>	<i>Machine Translation (CIS 526)</i>	<i>Analysis of Algorithms (CIS 502)</i>
<i>Database & Info. Systems (CIS 550)</i>	Networks and Security (CIS 331)	Stochastic Processes (STAT 433)
Artificial Intelligence (CIS 391)	Scalable & Cloud Computing (NETS 212)	<i>Italicized = graduate course</i>

Experience

Software Engineer Intern - SumAll

Summer 2015

- ◆ Summer backend intern for SumAll, a data company that brings analytics, reporting, and business intelligence to social media platforms.
- ◆ Wrote RESTful backend microservices that synced together the company's streams of user data, with support for scalable distributed computing through database sharding. Technologies used include Dropwizard, Jersey, and Jackson for Java, Flask and Boto for Python, MongoDB, DynamoDB, Jenkins, and Docker

Teaching Assistant - University of Pennsylvania

August 2014 - Present

- ◆ TA for CIS 121 ("Data Structures and Algorithms"), a third semester course in Penn's Computer Science sequence
- ◆ Duties include teaching weekly recitations, rewriting projects and homeworks, writing autograders, holding office hours, grading assignments and exams, and leading review sessions
- ◆ Projects include rewriting tools for statistics, improving the final project's writeup and interfaces, and writing a LZW Compression programming homework, and contributing to the vast grading infrastructure

Software Developer - University of Pittsburgh Medical School

May 2014 - Present

- ◆ Developed and currently maintain pcnstesting.com, a web app used for making and administering exams to medical school students (see project below)

Software Engineer Intern - BudgetSimple, Inc.

Summer 2014

- ◆ Summer intern at BudgetSimple, Inc., a startup specializing in budgeting apps for consumers
- ◆ Implemented a new startup wizard using Backbone.js, as well as a corresponding backend following RESTful API. Also Improved the web application's navigation, alert system, and user interface

Other work: **Developer** at *PennCycle*, **Research Intern** at *University of Pittsburgh*, and **Sales Consultant** at *Best Buy*

Projects

Search Engine - CIS 555 Final Project

Java, Scala (Spark)

- ◆ Developed as a group project between 4 students, this search engine consisted of a distributed web crawler, inverted index engine, TD/IDF engine, PageRank engine, query engine, and a web interface.
- ◆ Big data computation mostly done in Apache Spark using EC2. Various indexes and crawl data stored in Dynamo.

Pennthoven - Solo Project

Python

- ◆ A music composition application I am currently developing using machine learning in Python. The app essentially ports many of the prose and poetry generation NLP techniques into composing music.

PCNS Testing - Solo Contract Project

JavaScript (Backbone), PHP, PostgreSQL

- ◆ A consulting project for Prof. Ira Bergman of the Univ. of Pittsburgh Medical School, PCNS Testing is an application built from scratch that allows for creating, editing, and administering comprehensive, situation-based tests to be taken online by med school students and residents. The app also has thorough score-reporting features.
- ◆ Deployed to pcnstesting.com. Went through months of beta-testing at Pitt before going live in July 2015.

Skills

Languages:	<i>Advanced:</i>	Java, Python, JavaScript			
	<i>Proficient:</i>	Shell, C/C++, SQL, PHP, HTML/CSS			
	<i>Beginner:</i>	Scala, Haskell, OCaml			
Frameworks/ Tools:	Apache (Server, Maven, Hadoop, Spark, Jetty)	Flask	Django	Dropwizard	
	AWS (EC2, S3, DynamoDB)	Node.js/Express	Backbone.js	jQuery	
	Unix	Vim	Git	IntelliJ	