

# Peter Cougan

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## Education

**Syracuse University** (Syracuse, NY)

May 2019

- Computer Science Major (B.S.), *College of Engineering and Computer Science*
- Probability and Stats Minor, *College of Arts and Sciences*

## Technical Projects (View more online at: [petercougan.com](http://petercougan.com))

**Agile Group Project**

April 2018

*Software Implementation (CIS 454)*

- Used the agile method and scrum framework to create our software over a month-long period
- Developed a crowd-sourcing web application for engineers to propose and collaborate on open-sourced medical technology

**Naïve Bayesian Classification (NBC)**

February 2018

*Randomized Algorithms: Thinking & Coding (CIS 400)*

- Applied Baye's Theorem to classify thousands of data points with the NBC machine learning algorithm
- Classified thousands of random integers by first training the program and subsequently applying the new training data to classify each data point in the test set

**Multi-Threaded Synchronization in OS Kernel Space**

October 2017

*Design of Operating Systems (CIS 486)*

- Designed a multi-threaded algorithm to synchronize processes and protect shared resources with semaphores and mutexes in the kernel space of an operating system (JNACHOS)
- The problem was given as an analogy: synchronize a swimming pool obstacle course with lifeguards, children, and obstacles. Children can only enter an obstacle if there is a lifeguard there and must wait for the previous child to finish. Lifeguards must leave their obstacle if there is a longer line at another.

**Software Design Group Project**

October 2017

*Software Specification and Design (CIS 453)*

- Developed the Software Requirement Specification (SRS) and Design Document (DD) with UML diagrams
- Designed a student advising system for students to stay aligned with their academic track and create appointments with their advisors

## Technical Skills

*Engineering:* Algorithm Analysis & Design, Software Design, UML

*Languages:* Java, C/C++, Haskell, PHP, SQL, HTML, CSS, LaTeX

*Mathematical:* Probability & Statistics, Calculus

## Leadership Experience

**Syracuse University Phanstiel Scholar** (Syracuse, NY)

August 2015 – May 2019

- Awarded to students who have demonstrated academic success and community leadership
- Encourages and requires students to fulfill several community service projects throughout the academic year, such as fund raisers for charity organizations, mentoring local elementary/high school students, and many other opportunities

**Junior Achievement Program** (New Hartford, NY)

February 2015 – May 2015

*The Hartford Financial Services Group*

- Worked with a team of 20 students from nearby school districts to develop and sell our product – Charger Armor, a 3D printed product that reinforces iPhone chargers to prevent tearing
- Gained experience managing a team as Vice President of Human Resources, sales, working in a professional setting, and brainstorming/innovating in a large group