Peter Cougan

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Education

Syracuse University (Syracuse, NY) May 2019

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

Technical Projects View more online at: *petercougan.com/portfolio.html*

Naïve Bayesian Classifier February 2018

Randomized Algorithms: Thinking & Coding (CIS 400)

- Create a classification system using the Naïve Bayesian machine learning algorithm
- Using thousands of random integers as test data, I iteratively computed Bayes Theorem to determine the class for each, given each digit in the integer. Based on the classifications of the test data, I was able to predict the classifications for hundreds of thousands of subsequent integers
- Experience gained: applying probability to make 'smart' predictions in a program, machine learning design

Multi-Threaded Synchronization Routine October 2017

Design of Operating Systems (CIS 486)

- Implement the given synchronization analogy into an emulated machine and operating system (JNACHOS) as a kernel space procedure
- The problem consisted of an analogy in which a pool obstacle course with an arbitrary number of children, lifeguards, and obstacles are to be synchronized to successfully run all threads
- Experience gained: using Semaphores to synchronize multiple threads, general algorithm design for a multi-threaded routine, design of modern operating system components

Software Requirement Specification Team Project October 2017

Software Specification and Design (CIS 453)

- Develop a business-driven model of the team's chosen software with a completed Software Requirement Specification (SRS) document, including use-case diagrams, use-case descriptions, and activity diagrams
- Our team modeled a Student Advising System to be used as a web application in which students can easily schedule appointments with their advisors and also be advised by the automated system to help choose courses for their upcoming semester
- Experience gained: understanding software from a business perspective, modeling software with diagrams, working as a team, meeting deadlines as a long-term project

Technical Skills

Engineering: Algorithm Analysis & Design, Software Design
Languages: Java, C/C++, Haskell, PHP, SQL, HTML, CSS, LaTex
Mathematical: Probability & Statistics, Linear Algebra, 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

Work Experience

Town of New Hartford Dept. of Parks & Rec (New Hartford, NY) May 2016 – August 2017

Laborer, Summer Worker

- Mowed lawns, whacked weeds, painted, etc.
- Gained experience dealing with time management, working in small teams, and interpersonal skills