# Alexander Hutman

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## **FDUCATION**

## **QUINNIPIAC UNIVERSITY**

BS IN COMPUTER SCIENCE BA IN MATHEMATICS

May 2019 | Hamden, CT College of Engineering Magna Cum Laude Cum. GPA: 3.87 / 4.0 Major GPA: 3.95 / 4.0 (CS)

3.85 / 4.0 (Math)

# LINKS

Github:// alexhutman LinkedIn:// alexhutman YouTube: MathTutorials Quora:// Alex-Hutman-1 StackOverflow:// 6708303

# COURSEWORK

### **COMPUTER SCIENCE**

Algorithm Design & Analysis
Computer Architecture & Organization
Cryptography
Cyber Security
Data Mining
Data Structures & Abstraction
Intelligent Systems
Introduction to Software Development
Networking & Distributed Processing
Operating Systems & Programming
Parallel & Distributed Computing
Theory of Computation
iOS Programming

#### **MATHEMATICS**

Abstract Algebra
Advanced Calculus
Introdution to Discrete Mathematics
Linear Algebra
Multivariable Calculus
Number Theory
Ordinary Differential Equations

# SKILLS

## **PROGRAMMING**

Experienced:
Python • Java • Shell/coreutils
T-SQL • Javascript • VBA • vim
Acquainted:
Swift • C • PHP • Cython • Go

Assembly • R Familiar:

C++ • AWS • Scala • Objective-C • sed

## **EXPERIENCE**

#### **CIGNA** | SOFTWARE ENGINEER

July 2019 - Present | Bloomfield, CT

- Worked on HIFI an internal Python user-facing application that facilitated the transfer of DSV files into the Hadoop ecosystem and allowed users to query them using HQL.
- Improved its performance, CI/CD pipeline, and overall functionality/capability.
- Interacted with Kafka and Ceph S3; also made use of Jenkins and Ansible for deployment.

#### SIKORSKY AIRCRAFT | BUSINESS ANALYST INTERN

November 2018 - July 2019 | Stratford, CT

- Worked with customers to develop dynamic web-based applications and Excel macros tailored to their needs.
- Designed, queried, and maintained SQL databases to interact with aforementioned applications/macros.
- Created a web application for helicopter designers/engineers to consolidate data needed for calculating torque values based on different fasteners, wrench lengths, etc.

# **PROJECTS**

#### **VSCOVIEWER** | CHROME EXTENSION

Jan. - Feb. 2018

• Chrome extension in JavaScript that allows users to open pictures hosted on the VSCO website in a new tab at their respective uploaded resolution. Currently has 4.5 stars and 3,000+ users on the Chrome Web Store.

### GAUSSIAN | INTERACTIVE/INFORMATIVE WEB APP

June 2017, March 2018

• **Web application** in JavaScript using the p5.js library that informs users how Gaussian Blurs are performed, as well as the intuition behind the algorithm.

## RESEARCH

# QUINNIPIAC UNIVERSITY MATH DEPARTMENT | RESEARCHER

Fall 2016 - Present | Hamden, CT

- Wrote and optimized a program in Python-based mathematical software called SageMath that traverses a "metagraph" to efficiently calculate the zero forcing number of a desired graph.
- Will be **open-source** for others to be able to calculate similar "forcing numbers," which have applications in smart sensor networks and for uploading/downloading data in certain quantum computing design paradigms.
- A formal paper will also be written and will hopefully have use in graph theory.

# AWARDS/ACCOMPLISHMENTS

2015 - 2019 Dean's List For earning a 3.5 GPA or greater
 2015 - 2019 Dean's Scholarship "For academic excellence"
 2015 - 2019 Lee Company Scholarship "For being an outstanding student"
 2019 Quinnipiac Computing Club President