**Mitch Gin Lew**

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# EDUCATION\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Rutgers University – New Brunswick New Brunswick, NJ

*Double Major: Electrical & Computer Engineering and Computer Science, Bachelors of Science* May 2019

# ACADEMIC ACHIEVEMENTS & RELEVENT COURSEWORK\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Dean's List
* Relevant coursework: “Software Methodology”,“Data Structures”, “Intro To Artificial Intelligence”, “Principles of Info & Data Management”, “Computer Architecture and Assembly Language”, “Systems Programming”, “Software Engineering”, “Design & Analysis of Algorithms”, “Intro to Computer Systems”, “Intro to Network Security”, “Principles of Programming Languages”

# PROFESSIONAL EXPERIENCE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Lockheed Martin Moorestown, NJ**

*Software Engineer* July 2019 – Present

* Designed/Implemented C++ algorithms for new backend functionality on large JavaSwing application
* Unit tested developed C++ code to ensure proper functionality in the backend using GoogleTest
* Developed Java code that utilized SQL queries to pull data and display it dynamically on GUI
* Utilized Visual Studio’s debugger to investigate and resolve improper functionality in the C++ code
* Worked collaboratively within Agile software development life cycle, utilizing version control tools such as Git
* Used linux bash commands to navigate large files system for investigating and debugging ambiguous coding bugs

**Black Bear Lake Day Camp Millstone Township, NJ**

Group Leader July - August (2017 & 2018)

* Oversaw/organized technical elective period which introduced computers/iPads to young children
* Aided science teachers in science electives that explored electricity and magnetism, as well as engineering

# ACADEMIC PROJECTS\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Android Photo Album (Java)

* Created application that implements photo album functionality such as adding, deleting, moving photos and albums
* Utilized object oriented principles and data structures to query photo albums across multiple users
* Developed photo filtering system which allows user to create albums dynamically via photo tags and dates

## Web Server CSV file sorter (C)

* Developed a web server which could accept and handle remote client requests utilizing multithreading and socket technology
* Recursively traversed file directories for CSV files and perform sorting algorithms to sort based on user inputted arguments
* Dynamically allocated/deallocated memory to store varying sized CSV files that were merged and then sorted
* Prevented race conditions and data corruption by implementing synchronous code utilizing mutex/semaphore locks

**Artificial Intelligence (Python)**

* Implemented hill climbing technique to produce next optimal move for a player for the N-queens game
* Used Naive Bayes Classifier on thousands of sample images to predict what digit a test image was

# Implemented queue management functionality for DFS, BFS, Uniform Cost, and A\* search algorithms for graphs

**Software Engineering - Android Parking Reservation App (Java, XML)**

* Designed application in Android Studios that allows parking spots to be reserved via the mobile app
* Implemented online libraries to design and develop multiple features on application
* Utilized Amazon Web Services (Cognito, DynamoDB) to create login/registration and live database so that users across mobile devices can be updated when spots are reserved
* Worked in a group of 9, utilized waterfall software development life cycle to define and complete tasks

# TECHNICAL\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Programming: Java, C/C++, Python, SQL, Android Studios, Git

Operating Systems: Linux, Windows, MacOS

Applications: NetBeans, Android Studios, Visual Studios, Eclipse