**Tyler Amalfa**

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Freehold, New Jersey

**Education**

**Rutgers University, New Brunswick, NJ** Expected June 2024

*Electrical Engineering and Computer Science* **GPA**: 3.704

* **Relevant Coursework:** Principles of Electrical Engineering I, Data Structures, Discrete Structures, Linear Algebra, Intro to Computers for Engineers

**Manalapan High School, Manalapan, NJ** Graduated June 2021

*Science & Engineering Magnet Program* **GPA**: 4.8821

**Work Experience**

**Rutgers University**

*Student Tutor*  *January 2023-*

* Helped peers and demonstrated knowledge with material in the fields of Computer Science, Electrical Engineering, and Mathematics.

**Freehold Township Recreation**

*Summer Camp Counselor 2017-2022*

* Facilitated games and activities for the age group I had for the summer, ranging from grades K-6.
* Trained in CPR, procedure for a missing child, and several other skills needed for an emergency in the workplace.
* Handled a wide variety of camper behavioral issues, including manners that required administrator involvement and discussions with children’s parents.

**Tilly’s**

*Seasonal Sales Associate* *November 2021 – January 2022*

* Tended to customers’ needs for all products sold by Tilly’s by familiarizing myself with the store, the company, and their respective policies.
* Kept the store clean and orderly after closing time during the holiday season.
* Prepared the store to open by making sure all products and systems were in place.
* Assisted customers on our busiest day, Black Friday, and aided the store in running efficiently at this hectic time.

**Major Achievements**

**Junior States of America**

*President 2020-2021*

* Facilitated virtual debates on important global topics for groups ranging from 4 to 70 people.
* Ran a successful chapter of a national organization with high attendance.
* Organized fundraising and activism opportunities for the club and community.

**Science & Engineering Magnet Program**

*Student 2017-2021*

* Engaged with college level sciences, such as AP Chemistry and AP Physics C, from freshman year onward.
* Took a variety of classes surrounding disciplines of science and engineering, such as AP Computer Science A, AP Statistics, and Electronics.
* Learned mathematics up to Multivariable Calculus.
* Was one of fifteen students to graduate in the program in 2021.

**Hack of Distinction at HackFRee**

*Winner 2020*

* Created a modified version of laser tag which raised the stakes for older players in a 24-hour period.
* Utilized electronic design and construction skills to modify laser tag vests.
* Tested and received feedback on design.
* Was one of few winners amongst many projects from across the Freehold Regional High School District.

**Projects**

**Self-Balancing Skateboard Robot**

* Worked toward building a robot which could balance a skateboard, practicing skills with Arduino, circuitry, construction, and gyroscopes.

**Wordle Bot**

* Used Java to develop several versions of a program capable of solving the puzzle Wordle, culminating at a program with high accuracy in few guesses.

**Sudoku Solver**

* Completed a program which could solve a large amount of sudoku puzzles with a high degree of accuracy, utilizing Java, OpenCV, and Tesseract.

**Inventory System**

* Utilized Java and object-oriented programming to develop a program to keep track of various inventory items, and developed into website.

**Modified Laser Tag**

* Used skills in circuitry and construction to design and build a modified version laser tag to increase enjoyment for older users.

**Various Web Automation Projects**

* Developed several programs with Java and Selenium to automate tasks on several websites including: Nike, Walt Disney World, and Google Maps.

**Skills & Interests**

* Adept in math up and through Differential Equations and Linear Algebra
* Proficient with Java; some familiarity with C++ and Python
* Microsoft Office
* Circuitry, electronics, and soldering
* Entertainment industry, writing, and film