**Tyler Amalfa**

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Freehold, New Jersey

**Education**

**Rutgers University, New Brunswick, NJ** Junior,Expected May 2025

*Bachelor of Engineering in Electrical Engineering, Bachelor of Science in Computer Science, Minor in Creative Writing* **GPA**: 3.722

* **Relevant Coursework:** Principles of Electrical Engineering I & II, Linear Systems & Signals, Electronic Devices, Computer Architecture, Data Structures, Discrete Structures, Design & Analysis of Computer Algorithms

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

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

**Work Experience**

**Mutual of America**

*Information Security Intern*  *June 2023-July 2023*

* Built numerous programs with Java to aid and automate important Information Security tasks
* Compiled an application with Java that was deployed to a company server for analysis of crucial data from various Microsoft Excel spreadsheets
* Helped company’s upper management develop a disaster recovery plan for a newly overhauled cloud-based computing system and various other servers

**Rutgers University**

*Student Tutor*  *January 2023-Present*

* Helped peers and demonstrated knowledge with material in the fields of Computer Science, Electrical Engineering, and Mathematics
* Assisted during midterm and final exam periods, hosting extra hours for students to get important information

**Freehold Township Recreation**

*Summer Camp Counselor June 2017-August 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 before opening and after closing time during the holiday season and on Black Friday

**Projects**

**Self-Balancing Skateboard Robot**

* Worked toward building a robot which could balance a skateboard on its rear set of wheels based on measurements taken with a gyroscope
* Completed from September 2020-January 2021
* **Skills:** Woodworking, circuit design, Arduino, gyroscope data

**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
* Completed from March 2022-April 2022
* **Skills:** Java, Selenium Web Automation, HTML, algorithms, data structures

**Sudoku Solver**

* Completed a program in Java which could scan and solve a large amount of sudoku puzzles with a high degree of accuracy, using my own algorithm
* Completed from May 2020-June 2020
* **Skills:** Java, JavaFX, OpenCV, Tesseract, algorithms, data structures, image recognition

**Inventory System**

* Utilized Java and object-oriented programming to develop a program to keep track of various inventory items, and developed into website
* Completed from January 2023-February 2023
* **Skills:** Java, HTML, CSS, data structures

**Modified Laser Tag**

* Used skills in circuitry and construction to design and build a modified version laser tag which incorporated transcutaneous electrical nerve stimulation for older users.
* Completed in January 2020
* **Skills:** Circuit design

**Various Web Automation Projects**

* Developed several programs with Java to automate tasks on several websites including: Nike, Walt Disney World, and Google Maps
* Ongoing
* **Skills:** Java, Selenium Web Automation, HTML

**“Train of Thought”**

* Roughly twenty pages fictional short story, currently revising for publication
* Written in February 2023, Revision ongoing
* **Skills:** Creative writing

**Skills & Interests**

* **Skills:** Proficient in Java, MATLAB, and C++, some experience with Python, math up and through Differential Equations and Linear Algebra, Microsoft Office(Word, Excel, PowerPoint, Outlook), electronics including circuitry, diagrams, simulations, soldering, and analysis
* **Interests:** Skateboarding, entertainment, films and filmmaking, creative writing, construction, programming, automation, artificial intelligence