

# TYLER AMALFA

Freehold, NJ · amalfa629@gmail.com · (848) 207-8877 · linkedin.com/in/tyler-amalfa · github.com/amalfa629

## SUMMARY

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Motivated and versatile recent engineering graduate with dual degrees in Electrical Engineering and Computer Science from Rutgers University. Experienced in software development, computer vision, and AI, with a strong foundation in hands-on projects and technical problem-solving.

## SKILLS & INTERESTS

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Skills: Python, Java, MATLAB, C, C++, Git, Deep Learning, Computer Vision, Robotics  
Interests: Skateboarding, Films and Filmmaking, Creative Writing

## EDUCATION

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**Rutgers University** New Brunswick, NJ  
BS Electrical Engineering, Minor in Creative Writing *GPA: 3.76* September 2021 - May 2025  
BS Computer Science

## WORK EXPERIENCE

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**Mutual of America** New York, NY  
*Information Security Intern* June 2023 - August 2023

- Automated InfoSec Processes using Java, reducing time spent by ~50% weekly, deployed application to company server.
- Collected critical data from hundreds of company servers to help upper management build disaster recovery plan.

**Rutgers University** New Brunswick, NJ  
*School of Engineering Student Tutor* January 2023 - May 2025

- Tutored 30+ students in EE/CS courses, with >85% reporting improved exam performance.
- Provided critical last minute support to students during midterm and final exam periods

**Freehold Township Recreation** Freehold, NJ  
*Summer Camp Counselor* June 2017 - August 2022

- Supervised and led daily activities for 70+ children (K-6), resolving behavioral challenges and coordinating with parents and administrators over 6 summers.

## PROJECTS

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**Synchronous ASL Translator (SASLT)** *Python, OpenCV, MediaPipe*

A live video translator for American Sign Language finger spelling, using a fully connected neural network to convert hand landmarks to letters. Features text to speech for completed words.

**Chess AI** *Java, Alpha-Beta Pruning*

Developed a version of Chess by programming all moves and pieces, and then programmed a “bot” capable of playing the game by choosing optimal moves, currently capable of beating novice to intermediate players.

**Wordle Solver** *Java, Selenium*

Capable of solving 95% of Wordle puzzles in  $\leq 4$  guesses using Selenium-based automation.

**Snake Bot** *Java, JavaFX, A\* Algorithm*

Built the classic game Snake, as well as wrote a “bot” capable of playing as a snake and navigating the board to find “food.”

**Sudoku Solver** *Java, OpenCV*

Compiled my own Sudoku solving algorithm by researching common solving techniques. Developed into an application capable of scanning and solving puzzles of different sizes.

## AWARDS & HONORS

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**Summa Cum Laude** Rutgers University  
Graduated with two degrees with a highest honors distinction.

**Dean's List** Rutgers University  
Received Dean's List recognition every semester of undergraduate.

**Advanced Creative Writing Seminar** Rutgers University  
One of five students and five professors selected for prestigious writing workshop with renowned writer and distinguished professor Joyce Carol Oates.