

JULIAN HERMAN

julian.herman518@gmail.com | +1 (973) 943-6722 | Piscataway, N.J., USA *

SUMMARY

Focused undergraduate computer scientist passionate about creating concise, readable code. Seeking to leverage my strong mathematical reasoning skills and experience in cross-team collaboration to contribute to innovative projects and improve myself.

EDUCATION

Rutgers, The State University of New Jersey - New Brunswick, N.J. <i>B.Sc. in Computer Science / Minor in Mathematics</i> – expected July of 2023 Major GPA: 3.959 Cumulative GPA: 3.948	09/2020 – 07/2023
Stevens Institute of Technology - Hoboken, N.J. Completed 22 credits towards a <i>B.Sc. in Computational Physics / Physics</i> Major GPA: 4.000 Cumulative GPA: 4.000	08/2017 – 05/2018

ACADEMIC PROJECTS

Prolog Interpreter OCaml Principles of Programming Languages	2022
Implemented both a deterministic (supporting backtracking and choice points) and a non-deterministic Prolog Interpreter in OCaml.	
Optimized Matrix Multiplication C Computer Architecture	2022
Implemented a dynamic programming algorithm in C to multiply a chain of matrices with minimal operations and optimized performance for use with a simulated cache by applying cache blocking.	
Huffman Coding Java Data Structures	2021
Implemented a Java class containing methods for the Huffman Coding <i>encoding</i> and <i>decoding</i> processes.	

COURSEWORK

Principles of Programming Languages | Numerical Analysis and Computation | Intro to Computational Robotics | Deep Learning | Compilers | Systems Programming | Linear Optimization | Differential Equations | Multivariable Calculus | Intro to Linear Algebra | Math Theory of Probability | Electricity and Magnetism | Circuits and Systems | Dynamical Models in Biology

SKILLS

Software: C, OCaml, Python, Java; Linux; GDB (GNU Debugger); Git

Hardware: Oscilloscope; multimeter; circuit layout and soldering; high-voltage experimentation; 3D Printing

EXPERIENCE

Amazon Delivery Driver - Callen Logistics LLC, N.J.	06/2022 – 11/2022
Safely navigated roadways in company vehicle to deliver 300-400 packages per shift while adhering to protocol to resolve issues and maximize customer satisfaction.	
Automation Control Technician - Bowery Farming Inc., N.J.	12/2018 – 07/2019
Operated a state-of-the-art automation system that controlled an indoor vertical farm; collaborated with engineering teams to troubleshoot both software and hardware; implemented system improvements that yielded healthier crops and measurably increased floor productivity.	
Teacher's Assistant - Math Circles, N.J.	01/2018 – 05/2018
Taught and motivated elementary students in mathematics under teacher's supervision; responsible for breaking down difficult problems prepared by Stevens Institute of Technology Math Department and presenting them in an engaging way.	

HONORS/AWARDS

• Rutgers SAS Excellence Award: Ervin S. Fulop Scholarship recipient	2022
• Science Department Award, Vernon Township High School	2017
• First Place - Sussex County, N.J., MERCK State Science Day Test for Chemistry	2017

INTERESTS AND ACTIVITIES

- Functional Programming | Compiler & Language Design | Multi-Robot Systems | Emergence / Swarm Intelligence
- Rutgers University Outdoors Club | Stevens Society of Physics Students | Computer Science Club | Climbing and Mountaineering Club
- Astronomy & Astrophotography | Weightlifting | Rock climbing | Backpacking & Hiking

* Prefer to relocate