

EDUCATION

CORNELL UNIVERSITY

Computer Science, BS

Expected May 2022

GPA: 3.8 / 4.0

Dean's List

COURSEWORK

Fall 2021

Natural Language Processing

Analysis of Algorithms

Systems Programming

Spring 2021

Reinforcement Learning

Functional Programming

Computer Vision

UNIX Tools and Scripting

Fall 2020

Machine Learning

Computer Organization

Probability and Statistics

Spring 2020

Object-Oriented Programming

Linear Algebra

Differential Equations

Fall 2019

Discrete Structures

Multivariable Calculus

Operations Research

SKILLS

Languages:

Python • Java • C • OCaml • Swift

JavaScript • HTML • CSS • Ruby

Tools:

Vim • Git/Gerrit • IntelliJ • UNIX

Unity 3D • Elasticsearch • Xcode

RESEARCH INTERESTS

Software Development

Machine Learning

Data Science

Full-Stack Development

Algorithms

EXPERIENCE

THOUGHTSPOT | SOFTWARE ENGINEER INTERN (SEARCH TEAM)

June 2021 – August 2021 | Sunnyvale, CA

- Built a graph in Elasticsearch linking past queries in our internal search engine to clicked results and accessed this data to enhance search rankings
- Clustered together sensibly-related queries and clicks in this graph with Python
- Affixed new types of messages and phased out old types with Elasticsearch/Java

CORNELL EFFECTIVE ALTRUISM | PRESIDENT, FOUNDER

July 2021 – Present | Ithaca, NY

- Assembled a team of 4 to persuade students to choose high-impact careers
- Coordinated registration, stickers, website, apparel, and \$1,000s of funding, acting as point of contact for all aspects of the organization [website]
- Recruited 250 students to our email list in a single day, then led an info session
- Facilitating a weekly discussion fellowship with 3 sections of 6-7 students each

THORSTEN JOACHIMS LAB | AI RESEARCH ASSISTANT

August 2021 – Present | Ithaca, NY

- Will assist in ideating, proving theorems, and writing papers related to RL
- Implemented Linear Bandit baseline in Python for a paper on KWIK framework

CAPE CRYSTAL | RESEARCH ASSISTANT

September 2020 – June 2021 | Ithaca, NY

- Classified crystal structures in Python based on Stukowski paper [arXiv]
- Implemented BFS to partition nearby particles of the same classification
- Classified more varied and complex structures using K-Means
- Processed data on lab's Linux cluster and analyzed it with Matplotlib

CORNELL AUTONOMOUS BICYCLE | PROJECT TEAM MEMBER

February 2020 – Present | Ithaca, NY

- Implemented Pure Pursuit to make our robotic bike autonomously follow a path
- Integrated VFH [paper] with Pure Pursuit to avoid obstacles using Python
- Converted routes from Google Maps API into a format readable by the bike

PROJECTS

"PHOTOSYNTHESIS" SIMULATOR [GitHub]

- Created a user interface for a board game with a team of 3 in OCaml
- Fully designed a colored ASCII renderer with layers and complex functionality
- Identified a use case of the Ford-Fulkerson algorithm to validate player moves

POLYGON ART GENERATOR [GitHub]

- Developed Python program that synthesizes polygon art from photos
- Reduced jagged edges with an algorithm that decreases color variance per triangle by more than 50% compared to the naive solution

LEADERSHIP/AWARDS

- President of the Cornell Effective Altruism club, Fall 2021 - Present
- Academic Officer in the Association of CS Undergraduates at Cornell
- Course staff for Functional Programming at Cornell, Fall 2021
- Cornell Orientation Leader, Fall 2020/2021 - mentored incoming students
- Eagle Scout, one of ~300 Scouts in history to earn every merit badge
- 1st place in the world - Destination Imagination Scientific challenge