

Alex Yuan

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EDUCATION

Yale University

Aug 2021 – Exp. May 2025

Double Majoring in Computer Science and Economics (CSEC@Yale), GPA: 3.9/4.0

New Haven, CT

- Relevant Coursework: Introduction to Computer Science (CPSC201), Mathematical Tools for Computer Science (CPSC202), Data Structures and Programming Techniques (CPSC223), Introduction to Systems Programming & Computer Organization (CPSC323), Object-Oriented Programming (CPSC327), Introduction to Data Analysis and Econometrics (ECON117), Intermediate Microeconomics (ECON121), Intermediate Data Analysis and Econometrics (ECON123)

Lawton Chiles High School

Aug 2017 – May 2021

High School Diploma, GPA: UW – 4.0/4.0; W – 4.77/5.00

Tallahassee, FL

- Graduated Summa Cum Laude (Valedictorian)
- Relevant Coursework (Dual Enrollment at Florida State University): Microcomputer Applications for Business/Economics (CGS2100), Problem-Solving w/ Object Oriented Programming (COP2258), Web Programming and Design (CGS3066)

EXPERIENCE

Yale Social Robotics Lab

May 2022 – Present

Research Fellow

New Haven, CT

- Topic: Perception Technologies for a Socially Assistive Robot to Combat Anxiety with Prof. Brian Scassellati
- Support the design of Ommie, a novel robot that provides at-home support for people with anxiety to practice deep breathing.
- Utilize Robot Operating System (ROS) and Python to integrate motor movement and sensors (IMU, Thermal and RGB Camera, Respiration Belt, Radar) within Ommie for data collection (first of its kind publicly available).
- Build and develop convolutional neural network (CNN), long short-term memory (LSTM), and gated recurrent unit (GRU) machine learning models for respiration phase recognition.

Goldman Sachs

June 2022 – July 2022

Virtual Insight Series Participant

Remote

- Selected from over 10,000 applicants to better understand the various roles and divisions at Goldman Sachs.
- Completed and attended virtual workshops while also networking with other participants and professionals from across the firm.

Yale School of the Environment

Feb 2022 – May 2022

Tobin Research Assistant

New Haven, CT

- Topic: Remote Sensing and Measuring the Impact of Kenyan Resettlement Schemes with Prof. Luke Sanford
- Manipulated over 7 million entries of data. Wrote R code to merge Kenyan census and satellite data to create shapefiles.
- Built a CNN model to measure the impact of resettlement on economic, demographic, and environmental health outcomes.

Florida State University Department of Computer Science

Mar 2019 – Jan 2021

Research Assistant

Tallahassee, FL

- Topic: Deep Learning for Predicting Freeze of Gait in Patients with Parkinson's Disease with Prof. Shayok Chakraborty
- Developed Python deep learning models to predict "Freezing of Gait" in Parkinson's patients by analyzing patient motion data.
- The work was published (<https://ieeexplore.ieee.org/document/9356329>) and presented at the IEEE International Conference on Machine Learning and Applications, December 14-17, 2020, Miami, Florida.

EXTRACURRICULAR ACTIVITIES

Yale Men's Water Polo Team

Sep 2021 – Present

Team Member

New Haven, CT

- Participate in intercollegiate competitions with universities in the New England region (Dartmouth, Harvard, Penn, Tufts, etc).
- Achieved 4th place at the 2021 New England Collegiate Water Polo Conference Championship in Boston, Massachusetts.

Code Haven – Yale University

Sep 2021 – Present

Web Developer & Mentor

New Haven, CT

- Develop and maintain the Code Haven Yale website (<https://www.codehavenyale.com/>).
- Teach weekly lessons on computer science principles and programming to students at schools in the New Haven district.

HONORS & AWARDS

Yale College First-Year Summer Research Fellowship in the Sciences & Engineering

Apr 2022

Richard U. Light Fellowship Recipient

Apr 2022

Yale Department of Economics James Tobin Undergraduate Research Award

Feb 2022

USA Computing Olympiad (USACO) Gold Level Qualifier

Feb 2021

2x American Invitational Mathematics Examination (AIME) Qualifier

Mar 2019, Mar 2020

US Congressional App Challenge Winner

Jan 2020

SKILLS

Java, Python, R, C, CSS, HTML, JavaScript, Racket, Unix, Windows, ROS