

Benjamin Noah Beal

bebeal@utexas.edu | 832-540-6448

EDUCATION

UNIVERSITY OF TEXAS AUSTIN

BS IN COMPUTER SCIENCE

Expected May 2023

Major GPA: 4.00

Cumulative GPA: 3.98

SKILLS

LANGUAGES

Python | Java | C | HTML

CSS | Javascript

TOOLS

NumPy | Matplotlib | PyTorch

Tkinter | JavaFX | Git | GitHub

Unix Systems | LaTeX

COURSEWORK

UNDERGRADUATE

Probabilistic Machine Learning

Computer Architecture

Data Structures

Linear Algebra

Discrete Math

Probability and Statistics

Multivariable Calculus

AUDIT

Predictive Machine Learning Foundations

Geometric Foundations of Data Science

LINKS

Github: [bebeal](#)

LinkedIn: [bebeal](#)

Website: [benbeal.com](#)

EXPERIENCE

COMPUTATIONAL VISUALIZATION CENTER AT UT AUSTIN

ASSISTANT RESEARCHER

May 2020 – Present

- Led by Dr. Chandrajit Bajaj, PhD
- Conducting research using Neural Ordinary Differential Equations, Deep Reinforcement Learning, and Variational Autoencoders on the problem of Protein Folding

UT AUSTIN DEPARTMENT OF COMPUTER SCIENCE

TEACHING ASSISTANT

CS 314: DATA STRUCTURES | JAVA

Aug 2020 – Present

CS 303E: ELEMENTS OF COMPUTERS AND PROGRAMMING | PYTHON

Jun 2020 – Aug 2020

- Lead weekly 25-student discussion sections on lecture content and section problems
- Hold lab hours to aid students with project debugging, algorithmic efficiency, and code hygiene
- Grade and review weekly programming projects, quizzes and exams

PROJECTS

DOOM DRL

PYTHON | PYTORCH | NUMPY

- Trained a Deep Reinforcement Learning Agent to play the 1993 video game "Doom"
- Agent successfully learned control tasks from purely visual input fed into an Advantage Actor-Critic Neural Network

ULTIMATE TIC TAC TOE

JAVA | JAVAFX

- Used a Model-View-Controller framework to design a custom GUI to play Ultimate Tic Tac Toe against a bot that uses a MinMax algorithm

SCHEDULER

PYTHON | TKINTER

- Created a personal Task-Scheduler GUI using Tkinter for organizing my day to day tasks and optimizing when I should start and complete them by

EXTRA CURRICULAR

CS ROADSHOW

CURRICULUM DIRECTOR

- Volunteer outreach organization that visits K-12 schools to introduce students to the world of Computer Science and teach them about ways to get involved
- Create custom presentations to be presented by the other volunteers and I that teach students about Computer Science concepts, their real world applications, and future career options