

Nicholas Ribeiro

Prospect, CT | (475) 414-7420 | nicholas.ribeiro@yale.edu | Personal Portfolio Website: www.nicholasjribeiro.com

EDUCATION

Yale University, New Haven, CT

Expected Graduation May 2026

Bachelor of Science, Computer Science & Mathematics | GPA: 3.78

Relevant Coursework: Algorithms, Systems Programming & Computer Architecture, Human-Computer Interaction, Data Structures, Discrete Mathematics, Data Analysis, Probability Theory, Linear Algebra, Game Theory, Calculus III

Activities: Yale Computer Society Project Lead, Yale Poker Club President, Yale Student Technology Collaborative

WORK EXPERIENCE

YaleNLP, *AI Research Assistant*, New Haven, CT

August 2023 – December 2023

- Utilized iterative prompting and multi-agent collaboration methods to develop few-shot learning models for LLM financial data analysis, leveraging GPT-4 through OpenAI's API as well as Meta AI's LLaMA model
- Developing a reliable automated LLM evaluation pipeline for SEC Filing (10-K) analysis generation and refinement

Elevance Health, *Data Analytics Intern*, Indianapolis, IN (Remote)

June 2023 – August 2023

- Developed Snowflake analytical tools using Python and SQL for 14+ million Medicaid beneficiaries nationwide
- Wrote Python scripts to automate statistical identification of key metrics of improvement, streamlining operations
- Implemented machine learning and regression models resulting in 5% optimization of early-stage cancer detection tool

YMeets, *Software Development Team Lead*, New Haven, CT

September 2022 – Present

- Directing 12+ developer team in creation of an application to determine optimal group availability for meetings
- Implemented Firebase Authentication functionality, Google Calendar API integration, and mobile compatibility
- Spearheaded integration effort, merging React.js components with backend features to deploy a functional product

Milestone C, *Software Development Intern*, Shelton, CT

June 2022 – August 2022

- Streamlined internal processes through creation of a relational cloud database, enabling automatic purchase orders
- Developed novel Cybersecurity & Cryptography curriculum for implementation in 14 states, designed Python coding projects encompassing ciphers, RSA and AES encryption, and password security
- Consultant for IoT curricula encompassing web development, NoSQL databases, and Python for Raspberry Pis

PROJECTS

Amabam

February 2023

- Built gamified website providing a personalized way to learn new hobbies using artificial intelligence
- Assisted in development and integration of convolutional neural networks and OpenCV computer vision library to provide tailored feedback to users when practicing skills such as juggling
- Utilized MongoDB with Flask for backend, React.js for frontend, and MediaPipe for pose recognition

Flappy Bird AI

December 2022 – January 2023

- Created Flappy Bird endless runner game in Python using PyGame library
- Using the NeuroEvolution of Augmenting Topologies (NEAT) evolutionary algorithm, developed an artificial neural network that could perfectly play the game, generating statistical data for each evolutionary generation

TeX-like Macro Processor: Macro expansion program in C enabling user-defined macros and large document parsing

Benford's Law Stock Pricing: Real-time statistical identifier of anomalous stock pricing activity and volatility in Python

Personal Portfolio Website: Personal website featuring interactive 3-D components and project reference links

SKILLS AND INTERESTS

- *Computer Languages:* Python, C, Java, R, Rust, Assembly, C++, SQL, HTML, CSS, JavaScript, Racket, TypeScript
- *Tools and Libraries:* Pandas, NumPy, REST APIs, Git, Unix, Firebase, Snowflake, LaTeX, React.js, Tailwind CSS
- *Interests:* Running, poker, traveling, photography, learning languages, origami, chess, golfing, table tennis, Spikeball