



ALLISON HUI

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Education

Cornell University, College of Arts & Sciences

Bachelor of Arts in Computer Science, Bachelor of Arts in Statistical Science, Minor in Business

GPA: 3.5/4.0

Ithaca, NY

Expected May 2025

Relevant Coursework: Machine Learning, Analysis of Algorithms, Operating Systems, AI, Computational Biology, Object Oriented Programming & Data Structures, Functional Programming, Computer System Organization, IOS Development, Statistical Computing, Business Management, Microeconomics, Marketing Principles

Technical Skills

- **Programming Languages:** Python, Java, C/C++, OCaml, R, Swift, JavaScript, HTML, CSS
- **Technologies:** React, MongoDB, Pandas, NumPy, Pytorch, SQL, Node.js, Jupyter Notebook, Node/Express, Figma, Firebase, NPM, Yarn, Git, GitHub
- **Microsoft Office Suite:** Excel, Word, PowerPoint

Experience

Code/Art

Aug 2022 – Aug 2023

Coding Intern

Remote

- Delivered comprehensive professional development workshops in Palm Beach County for over 170 teachers, showcasing expertise in JavaScript, TinkerCAD, and Scratch
- Mentored and guided students in crafting intricate 3D models and coding abstract art pieces, contributing significantly to the mission of increasing female representation in STEM

Association of Computer Science Undergraduates

Aug 2022 - Ongoing

Academic Team Lead

Ithaca, NY

- Pioneered a platform that bridges the gap between computer science students and professors seeking undergraduate research support
- Founded CS0000, a FAQ site exclusively tailored for first- and second-year Cornell students, providing them with a vital channel to seek guidance and wisdom from upperclassmen regarding courses, clubs, and more
- Hosted and organized events that brought together over 120 students, including the inspiring Research Night and the engaging Faculty Luncheon

Cornell Bowers CIS

Aug 2023 - Ongoing

Probability Models and Inference Consultant

Ithaca, NY

- Evaluated six major homework assignments and exams, ensuring students receive constructive feedback
- Diligently proctored exams for up to 200 students to maintain academic integrity and uphold Cornell's standards of excellence

Projects

Cornellopolly | OCaml

- Created an immersive Monopoly-inspired game, comprising of 1200+ lines of code that efficiently manages player movements, financial transactions, and property ownership
- Developed and executed a suite of 60+ test cases and validated the game's functionality through 100+ manual tests
- Built gameboard by writing a JSON file of player and board information and parsing through it
- Operated Dune to execute the game and harnessed ANSITerminal to orchestrate player interactions

Profile HMM Alignment Engine | Python

- Developed a Python sequence alignment engine, integrating Profile Hidden Markov Models to enhance alignment precision
- Designed a scalable algorithm, handling states and transitions, reflecting the complexity of biological sequence variations
- Implemented pseudocount optimization and probabilistic modeling to process alignments with improved alignment accuracy over traditional methods
- Utilized JSON for efficient amino acid frequency data retrieval and numpy for high-performance numerical computations

Tempo Tunes App | Swift

- Crafted an iOS Music Directory App that revolutionizes song organization, allowing users to effortlessly categorize their music by artists, titles, and albums
- Implemented Model-View-Controller techniques to ensure the app is both user-friendly and aesthetically pleasing
- Worked with UITableView Class to make buttons easy to see, find, and click

Languages: English, Mandarin, Cantonese

Interests: travel blogging, hiking, poetry, specialty coffee crafting