

RYAN SONG

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EDUCATION

Carnegie Mellon University

Class of 2026

Majors: *Statistics & Data Science and Computer Science*

Dean's List High Honors

GPA: 3.87/4.0

Relevant Coursework:

- Data Structures and Algorithms, Fundamentals of Computer Science, Fundamentals of Imperative Programming, Introduction to Computer Systems
- Differential and Integral Calculus, Multivariate Calculus, Advanced Methods for Data Analysis

WORK EXPERIENCE

KTBYTE Computer Science Camps and Academy, Lexington, MA

Tutor

Winter 2022-Present

- Worked with students from across the globe on various app-related projects such as Flappy Bird, Snake, and the Dinosaur Game

Goddard Space Flight Center, Greenbelt, MD

Summer 2022

Cloud-Aerosol Classification Intern

- Built a basic identification model for different aerosol types (ice, liquid, dust) with Convolutional Neural Network
- Had work presented at American Geophysical Union and American Meteorological Society

"Developing a Machine-Learning Thermodynamic Phase Model" Intern

Summer 2021

- Combined, screened, and injected various satellite data into a Machine Learning model (Random Forest) for identifying ice and liquid clouds, then generated matrices and plots to analyze new model predictions

PROJECTS

Bloons AR App

Swift

- Created an interactive projectile game using Apple's AR and Reality Kits
- Implemented entity physics and collision along with plane detection

User Storage App

Kotlin

- Allows user to store username and email information locally, with options to view and edit their data
- Implemented features to create, delete, and update information in an Android SQLite database

RainCheck App

Swift

- Utilized openweather API to retrieve and display weather conditions at any chosen location
- Made use of ParticleKit UI to compose visuals that displayed with current weather conditions

Sudoku

Python

- Implemented features: Autosolver (with backtracking algorithm), user-created boards, and Hints
- Included user-friendly options such as keyboard-only and mouse-only modes

SKILLS

Programming: Python, R, Java, Javascript, C, HTML & CSS, Swift, React, Tailwind, NodeJS

Languages: English (fluent), Chinese (fluent)

Data Retrieval & Analysis packages: Scikit-Learn, Tensorflow, Pandas, Matplotlib, Numpy