Andy Xu

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https://github.com/andyx0

Education

Rutgers University, New Brunswick, NJ   Bachelor of Science Expected May 2025
- Intended Major: Computer Science • Intended Minor: Math
- Total credits completed: 63 • GPA: 4.0 • Dean's List 2/2 semesters

Montgomery High School, Skillman, NJ   September 2017–June 2021
- GPA: 95.98 • SAT: 1590
- Awards and Honors: United States President's Award for Educational Excellence • U.S. Presidential Scholars Program Nomination • National Merit Scholarship Commended Student • Rural and Small Town Recognition Scholar • AP Scholar with Distinction • Principal's Honor Roll (9th-12th)

Key Courses

- Software Methodology (CS213) • Computer Architecture (CS211) • Data Management for Data Science (CS210) • Discrete Structures II (CS206) • Discrete Structures I (CS205) • Data Structures (CS112) • Linear Algebra (MATH250)
- AP Credit: Computer Science A, Calculus BC, Microeconomics, Macroeconomics, Chemistry, Biology

Technical Experience

Research Assistant   May 2022–Present
- Researched object rearrangement with multiple layers of objects with Prof. Jingjin Yu
- Designed optimal algorithms using integer linear programming to minimize the amount of moves needed to solve object rearrangement tasks, scalable to over 100 objects
- Deployed robotics experiments in the lab, which involved a mixture of simulation and hardware experiments
- One of one selected from over 20 applicants

Project: Clash Royale Discord Bot   April 2022–Present
- Created a Discord bot in Node.js to monitor match play activity through the official Clash Royale API
- Built a SQLite database where player IDs are keys and watchers is the associated value

Project: Code Redeemer   May 2022–August 2022
- Developed Python script to autonomously redeem codes for the Pokemon Trading Card Game Online (PTCGO) by emulating server requests sent from the website
- Capable of guessing missing characters by computing cartesian products

Leadership Experience

Tennis Coaching, Skillman, NJ   August 2020–October 2020
- Recruited coaches and matched players with coaches based on availability and skill level
- Planned lessons based player age and skill level
- Collaborated with local food pantry to donate money raised ($1,660)

Chess Teacher, Skillman, NJ   September 2017–June 2019
- Facilitated classes of over 30 students while individualizing lessons to each student's needs and skill levels
- Researched and presented teaching methods to other teachers under the guidance of the school principal

Skills, Talents, & Interests

- Java • Python • Regular Expression • C • HTML • CSS • JavaScript
- Piano (7 years of formal instruction, won High Honors at competitions)
- Tennis (4 years of formal instruction, played on High School team)