Matt-Joshua Tan

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Education

Binghamton University   Expected Graduation: May 2027
Bachelor of Arts in Mathematics | **GPA:** 4.0/4.0
Bachelor of Science in Computer Science
Scholars Program – Top 3% of students, invite-only program focusing on high-impact learning and community service
Putnam Mathematical Competition – North American college math contest. Score: 10/120 (2023)
Relevant Coursework – Intro to Programming (Python), Object-Oriented Programming (Java), Linear Algebra

Technical Skills

Languages: Python, Java, R, SQL, C, HTML/CSS/JavaScript
Tools: pandas, PyTorch, Jupyter Notebook, RStudio, Visual Studio Code, Vim, Git, Docker, Windows, macOS, Linux
Miscellaneous: Video Editing (Premiere Pro, Davinci Resolve), ArcGIS Pro

Professional Experience

Binghamton University, Binghamton, NY   November 2024 - Present
Research Assistant

- Utilized machine learning approaches in a team of three towards identifying drug candidates for lung cancer treatment
- Fine-tuned existing BERT architecture for regression tasks on molecular representations

Bridge to Enter Advanced Mathematics (BEAM), Claremont, CA   June 2024 – July 2024
Teaching Assistant / Counselor

- Taught and mentored group of 40 underprivileged middle school students from the LA area in advanced mathematics topics, problem-solving ability, and life skills at Harvey Mudd College
- Collaborated with other counselors and teachers to teach math, problem-solving and introductory Python classes
- Selected from NY/LA cohorts to present my experience to sponsors at Jane Street and Hudson River Trading

Project Experience

Identifying Abandoned Gas Wells in Salt Springs State Park, Binghamton University   August 2024 – Present

- Worked in a research team of 6 to locate methane leakage from abandoned gas wells in Montrose, Pennsylvania
- Examined and visualized 25+ hours of magnetometer data in R, Python, and ArcGIS Pro
- Will present our findings at an annual Poster Session to a public audience

Nichify, Yonkers, NY   June 2024

- Built a web app in Python to find underappreciated artists on Spotify using its Web API
- Used Flask to parse and display artist data; deployed to the web using Flask and Render

Vision Board Creator, Binghamton University   May 2024

- Built a "vision board" creator with text and image customization in a Pygame GUI
- Configured a local Stable Diffusion model to provide appropriately sized, safe-for-work AI images

Involvement

Binghamton University
Association for Computing Machinery, Intern   January 2024 – Present

- Attended student-run lectures on CS topics such as Bluetooth, IoT, and multithreading
- Won "Best Freshman" at spring coding competition amongst 50+ students