Mary Xu

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EDUCATION

Georgia Institute of Technology

MS in Computer Science | Computer Graphics concentration   *Atlanta, GA | 2021-2022 (expected)*
- GPA: 3.9
- <u>Related courses:</u> Computer Animation, Procedural Content Generation, GPU Programming for Video Games, Graduate Computer Graphics, Computer Aesthetics

BS in Computer Science | Media + Intelligence concentrations   *Atlanta, GA | 2017-2021*
- GPA: 3.86 | Zell Miller Scholarship
- <u>Related courses:</u> Computer Graphics, Video Game Design, Computer Vision, Machine Learning, Introduction to Artificial Intelligence, Computer Audio

SKILLS

Technical

C#, Unity, Java, JavaScript, Processing, OpenGL, PowerShell, Python, PyBullet, Git, React, TypeScript, C, NumPy, HTML/CSS, Mercurial, Bash, Flask

Creative + Design

Adobe Illustrator, Procreate, Blender, Adobe Draw, Adobe Photoshop, Figma, Laser cutting, woodworking

PROJECTS

Unity: *Waterboy Adventures*   *Atlanta, GA | August 2020*
- A puzzle-based game built in <u>Unity</u> and <u>C#</u>. Help the character gain abilities and replenish water in his village.
- Developed AI pursuit agents, weapon logic, character and treasure box persistence. Modeled character in <u>Blender</u>.

Adventure board game: *Escape to Elysium*   *Atlanta, GA | August 2017 – January 2020*
- Leader of design team. Designed all board game parts. Eased game play for potential players of the game.
- "Design ethos united the game pieces, manual, and marketing materials." -Professor

GameBoy Advance: *LumberJack Jack*   *Atlanta, GA | November 2018*
- An escape room GameBoy Advance game. Help a lumberjack who lost his way at work one day.
- Solo project with programming, design, and art using <u>C</u> and <u>Adobe Photoshop</u>. Top 10 projects in class of 400+.

EXPERIENCE

Georgia Institute of Technology

Computer Graphics Teaching Assistant   *Atlanta, GA | January 2022 – May 2022, January 2021 – May 2021*
- Hosted office hours to answer student questions about projects, debug their code, and give pointers on how to start or complete the project. This included giving a lot of background on various computer graphics concepts.
- Graded student projects based on a rubric. Gave feedback about what went wrong and what went well in their work.

Computer Graphics Research   *Atlanta, GA | August 2021 – December 2021*
- Simulate human grip on <u>PyBullet</u>. Grip is difficult on PyBullet due to the lack of friction on solid bodies.
- Creating 3 different methods of increasing contact points and pliability of a gripper to simulate grip better.

Microsoft

Software Engineer Intern on Office for the Web Infrastructure   *Remote | May 2021 – August 2021*
- Worked with <u>C#</u> on the monorepo to migrate our services to using Azure Managed Identities for authentication instead of connection strings and certificates.
- Automated Azure Managed Identity setup in Azure Portal with <u>PowerShell and Azure PowerShell</u> scripts.
- Reduced cost of managing our secrets for our services by 91% and eased future Managed Identity setup.

Software Engineer Intern on Office for the Web Infrastructure   *Remote | May 2020 – August 2020*
- Worked with <u>C# and Git</u> to create a tool that automates transfer of data from configuration files to a source of truth.
- Saved developers 50% of the work and created a more reliable location for all of datacenter configurations.
- Results will be used to monitor and alert during runtime. Will be helpful for future developers on-call.

Explore Program Intern on OneDrive/SharePoint   *Seattle, WA | May 2019 – August 2019*
- Work with <u>React, TypeScript, and Git</u> to build an interactive and customizable dashboard.
- Made sure the state of the dashboard saves after logging out and after changes made from a side panel.

- Created a stepping stone for other teams in Microsoft 365 to implement similar dashboards.

Chick-fil-a Technology Innovation Center

Software Innovation Intern   *Atlanta, GA | August 2019 – December 2019*
- Working with <u>Python</u> to evaluate accuracy, sensitivity, and specificity of models learning food safety hazards.
- Script outputs incorrect predictions as well as accuracy, sensitivity, and specificity over time.

PACE at Georgia Institute of Technology

Software Testing and Software Development Student Assistant   *Atlanta, GA | September 2018 – May 2019*
- Built and tested software using <u>bash, Mercurial, and terminal</u> for Georgia Tech employees and students.
- Software will either be built from source or by using the software's binaries. Everything done on Linux system.

ORGANIZATIONS

HackGT

Design Director, Rebrand Lead, Build Crew Lead   *Atlanta, GA | November 2019 – November 2020*
- Managed 5 project teams within Design team to host our first virtual hackathon. Created a new project team with marketing, improving cross team communication and increased planning for the marketing campaign.
- Rebrand Team: lead an org rebrand to create a more coherent and recognizable brand, allowing for future growth.

Design Team Member, Build Crew Member   *Atlanta, GA | January 2018 – November 2019*
- Design lead for Catalyst, a learn-a-thon for underprivileged high schoolers in the Metro Atlanta area.
- Used <u>Adobe Illustrator, Adobe Draw, and Figma</u> to design all the visuals at HackGT events.
- For HackGT6: Into the Rabbit Hole, helped paint and laser-cut parts for the large structures displayed in the venue.

HIVE Peer Instructor   *Atlanta, GA | January 2020 – March 2020*
- The HIVE at Georgia Tech is an interdisciplinary makerspace with many tools for students to use to create.
- Helped students with using the 3D printer, the laser cutters, and wood shop. Paused work due to COVID-19.

Golden Swarm Games Studio   *Atlanta, GA | January 2018 – January 2020*
- Studio President and Founder. Plan for each general and officer meeting. Plan events for the club.
- Studio created because of *Escape to Elysium* to advance the game and create more board/video games.