Angela Dai

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Education

Georgia Institute of Technology, Atlanta, GA *Aug 2020–**Expected May 2024***

Bachelor of Science in Computer Science, ***3.95 GPA***

- Concentration in Media and Artificial Intelligence

Relevant Course Work: Computer Graphics, Computer Vision, Intro to AI, Video Game Design, UI/UX Design, Linear Algebra, Data Structures and Algorithms, Design and Analysis of Algorithms, Object Oriented Programming, Discrete Math

Experience

Viasat Inc. *May 2022–Aug 2022*

Software Engineering Intern

- Developed a StackStorm data visualization tool to monitor the event automation's trigger and action metrics for outage detection and server optimization on the team's EC2 servers using **Python** and **AWS Cloudwatch**
- Migrated a server API from an internal library to an inner source solution for increased maintainability and consistency through the platform using **Python**
- Created and updated unit tests to ensure automated test coverage for newly migrated features using **Python** and **Jenkins CI/CD** pipeline

Georgia Tech: Digital Integrative Liberal Arts Center *Oct 2021–Present*

Software Developer, Project Manager

- Led a 3-person development team in building a location-based AR installation that recreates the Atlanta Pickrick protests that occurred on Georgia Tech's campus using **Unity**, **Blender,** and **C#**
- Created an AR timeline to add historical context and anchor the experience in the physical world using image recognition and ARFoundation
- Developed an AR hotspot system that utilizes spatial anchors and collisions to allow user interaction at predefined locations within the environment

Georgia Tech: Augmented Environments Lab *Sep 2020–May 2021*

Research Assistant

- Collaborated with a 3-person team to develop an interactive VR environment representing McCloud's "Big Triangle" using **JavaScript**, Mozilla Hubs, and **Three.js**
- Implemented real-time model transformations based on the user's position in the room using morph targets and shape-keys with **Three.js** and **Blender**

Projects

LetsBuild! | Hackathon *Oct 2022*

- Developed a collaborative AR block building game to encourage more productive screentime for children using **Unity** and **C#** during HackGT
- Implemented AR multiplayer using Apple's Multipeer Connectivity framework to encourage real-world communication between players
- Utilized AR and physics raycasting to allow the player to interact with both real-world and AR objects

Ray Tracer | Individual *Sep 2022*

- Built a ray tracer from scratch to render a 3D scene using a path tracing algorithm with **C++**

Computer Vision Projects | Class *Fall 2022*

- Designed and trained convolutional networks from scratch and finetuned the ResNet architecture to classify scenes
- Created an image feature matching algorithm based on the SIFT pipeline using **Python, Pytorch**, and **Numpy**
- Used RANSAC to solve for the camera movement between images using the fundamental matrix

Leadership

College of Computing Peer Mentoring *Aug 2022–Present*

Peer Mentor

- Mentored a cohort of 24 computer science freshman, providing academic, social, and professional advice
- Organized monthly meetings to foster team bonding and networking amongst mentees

Skills

Programming:	Python, Java, C, C#, C++, JavaScript, HTML, CSS, Swift, GLSL
Frameworks & Libraries:	Numpy, PyTorch, Tensorflow, ARFoundation, Three.js, A-Frame, Agile, Scrum, Kanban
Tools:	Git, AWS, Docker, Unity, Blender, Adobe Suite, Figma, Xcode, Visual Studio, Linux