

# Grant Skaggs

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## Education

May 2022 **University of Texas at Austin, Turing Scholar Honors Program**  
B.S. Computer Science & Philosophy Minor; **GPA: 3.96**

## Experience

- Summer 2020 **Duolingo, Software Engineering Intern**
- Completed an internship at a language-learning company with over 500 million active users
  - Worked closely with product managers and engineers to implement a new feature to Duolingo's iPhone app
- Summer 2019 **University of Texas at Austin, Undergraduate Research Assistant**
- Applied recurrent neural networks to cache data prefetching in modern computer architectures
  - Developed a two-layer LSTM neural model using TensorFlow and Python to prefetch memory addresses

## Projects

- Summer 2021 **Pyxeled, Python**
- Applied **machine learning** fundamentals to transform normal photographs into aesthetic pixel art
  - Implemented **clustering algorithms** to preserve image features at lower resolutions
- Summer 2020 **RayTracer, C++**
- Developed a **ray-tracer** in **C++** to render 3-Dimensional scenes
  - Implemented features: Polygonal meshes, 3D object rotation/distortion, recursive reflection and refractions, point and directional lighting, multithreading, variable material types, shadows, specular and diffuse shading

## Extra-curriculars

- Spring 2021 **Texas 4000 for Cancer, Equipment and Gear Manager**
- Present • Coordinate training and logistics for a 4000 mile charity bike ride from Austin to Alaska
  - Present vital equipment and gear information at weekly leadership and general team meetings
- Fall 2020 - **University of Texas Computer Science Department, Freshman Mentor**
- Present • Leading a small group of first year CS students in a weekly seminar to build CS community and connect students to CS-specific resources
- Spring 2021 **University of Texas Computer Science Department, Teaching Assistant**
- Held office hours and graded programming assignments for an honors-level Computer Graphics course
  - Advised students on a final research project focused on independent inquiry in the field
- Summer 2019 **Austin Chinese Educational Services, Course Instructor**
- Led introductory Python and Scratch courses for elementary and middle school students; designed the course objectives and curriculum; taught daily lectures; helped students with their course projects

## Skills

**Proficient:** C/C++, Java, Python, HTML, CSS

**Familiar:** Javascript, Swift, Kotlin, Git, Bash, React, Google Firebase, Unity, numpy, scikit-learn, pandas, Agile Development, Unit / Functional Testing

## Honors / Awards

**General Academics:** National Merit Scholar, National AP Scholar, UT Austin Presidential Scholar, Phi Beta Kappa Scholarship, CLHS Valedictorian, National Honor Society President

**Science / Technology:** AIME Qualifier, Science Olympiad Gold Medalist, HackTX CDK Global Award, USACO Gold Ranking