

# GRANT SKAGGS

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## EDUCATION

*University of Texas at Austin, B.S. Computer Science*

Aug 2018 - May 2022

- Turing Scholars Honors Program.
  - Cumulative GPA: 3.97
  - CS Coursework: Algorithms, Data Structures, Operating Systems, Computer Architecture, Discrete Math, Computer Graphics, Competitive Programming, Research in Computer Architecture.
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## EXPERIENCE

*University of Texas at Austin, Undergraduate Research Assistant*

Summer 2019

- Applied recurrent neural networks to the problem of cache data prefetching in modern computer architectures.
- Working under Dr. Calvin Lin, developed and tuned a two-layer LSTM neural model using **TensorFlow** and **Python** to predict prefetched addresses.
- Tested our model using GPUs on **Google Cloud Platform**, demonstrating an 8% improvement over baseline.

*Austin Chinese Educational Services, Course Instructor*

Summer 2019

- Led introductory and intermediate **Python** programming courses.
  - Material included programming fundamentals, OOP, data structures, and algorithms.
  - Mentored high school and intermediate school students.
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## PROJECTS

*Ray-Tracer*

June 2019

- 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.

*Web Crawler*

Dec 2018

- Designed a **Java** application for web crawling, page indexing, and search.
- Implemented a robust **web query parsing** algorithm using abstract syntax trees.
- Included a graphical user interface and page-ranking features.

*Plexus- An Adventure Role Playing Game*

Summer 2018

- Designed and built a 2D side-scrolling PC game in **Java**.
  - Finished Top 15 at the **BPA Nationals** Software Engineering Team competition.
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## SKILLS

- **Much Experience:** C++, Java, Python, C, Git, Swift.
  - **Some Experience:** TensorFlow, Scikit-Learn, Bash, Assembly, Verilog.
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## HONORS / AWARDS

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|--------------------------|----------------------------------|-------------------------------|
| • National Merit Scholar | • AIME Qualifier                 | • Clear Lake HS Valedictorian |
| • National AP Scholar    | • Science Olympiad Gold Medalist | • Phi Beta Kappa Scholarship  |
|                          | • HackTX CDK Global Award        |                               |
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**Work Eligibility:** Eligible to work in the U.S. with no restrictions.