

Garrett Gu

Student at the University of Texas at Austin, Computer Science
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Experience

- **Forward Tutoring** 07/2017-07/2018
Lead Software Developer
 - Built from scratch a new and improved website and online tutoring platform for **Forward Tutoring**, a 501(c)3 nonprofit that provides unlimited free tutoring, leading to a **140% increase** in user registrations
 - Coordinated the selection and scheduling of qualified volunteer tutors, allowing a **50% increase** in tutoring time and a **290% increase** in tutor engagement
- **Physics Department, Southern Methodist University** 06/2016-08/2016
Student Intern 06/2017-08/2017
 - Collaborated in a group of 8 on summer physics research in the lab of Dr. Jingbo Ye over novel methods of measuring dielectric properties
 - Enhanced a **3D robotic arm** by producing counterweights for height retention and created an intuitive front-end user interface using Java Swing for smooth operation
 - Co-author of a **Electron/WebGL** program used to visualize CMOS sensor data to detect subatomic particles

Education

- **The University of Texas at Austin** Austin, TX
Pursuing B.S. in Computer Science 2018-2022
 - Member of the **Turing Scholars** honors program
 - Recipient of the 2018 Corbyn Salisbury Endowed Scholarship
 - Currently enrolled in **Data Structures**, Probability, and Discrete Math
- **Texas Academy of Mathematics and Science** Denton, TX
University of North Texas 2016-2018
 - Graduated with **4.0 GPA**, Gold Cord, and Honors diploma
 - Completed Systems Programming, Linear Algebra, Differential Equations I, II, and Complex Variables

Projects

- **TetrisBrain** Java
Tetris Implementation and AI 09/2018-10/2018
 - Used a genetic algorithm to generate a greedy AI to play Tetris with the goal of long term survival
 - Able to clear hundreds of thousands of lines in one game
- **RandomWriter** Java
Predictive Text Engine 09/2018
 - Used **Markov Chains** and hash tables to generate new text output that mimics the properties of a large amount of source texts at both the character and word level

Skills

- Languages:
 - Proficient in Java, C++, JavaScript, C
 - Familiar with bash, PHP, SQL, Python, L^AT_EX
- Frameworks: Express.js, Meteor.js, React.js, React 360 (formerly React VR), Qt
- Other technologies: git, webpack, linux, UML