

# Garrett Gu

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

- **Physics Department, Southern Methodist University** 06/2017-08/2017  
*Student Intern* 06/2016-08/2016
  - 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-created a **Electron/WebGL** program used to visualize CMOS sensor data to detect 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
  - Completed **Data Structures**, Probability, and Discrete Math with **4.0 GPA**
- **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
- **Forward Tutoring** JavaScript  
*Online live tutoring platform* 07/2017-07/2018
  - Built from scratch a new and improved 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 algorithmic selection and scheduling of qualified volunteer tutors, allowing a **50% increase** in tutoring time and a **290% increase** in tutor engagement

## Extracurricular Activities

- **UT Information and Systems Security Society** 12/2018 - present  
*Engineering Officer*
  - Created Capture-the-Flag challenges for biweekly competitions and prepared talks over security techniques and best practices

## Skills

- Languages:
  - Proficient in Java, C++, JavaScript, C
  - Familiar with bash, PHP, SQL, Python
- Frameworks: Express.js, Meteor.js, React.js, React 360 (formerly React VR), Qt