Garrett Gu

Student at the University of Texas at Austin, Computer Science 201 East 21st Street #M0847, Austin, TX 78705

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## **Experience**

# Physics Department, Southern Methodist University

06/2016-08/2016 06/2017-08/2017

Student Intern

- 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
- Completed **Data Structures**, Probability, and Discrete Math with **4.0 GPA**

## Texas Academy of Mathematics and Science

Denton, TX 2016-2018

University of North Texas

- 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

07/2017-07/2018

- Online live tutoring platform
  - 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

#### **Extracurricular Activitie**

## **UT Information and Systems Security Society**

12/2018 - present

- Engineering Officer
  - Responsibilities include creating Capture-the-Flag challenges for biweekly competitions and preparing talks over security techniques and best practices

#### Skills

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