Garrett Gu

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Education

- **The University of Texas at Austin** *2018 - 2021*
  Pursuing B.S. in Computer Science **GPA: 4.0**
  - Member of the **Turing Scholars** honors program
  - Recipient of the 2018 Corbyn Salisbury Endowed Scholarship
  - Coursework: Architecture, Data Structures, Competitive Programming, Probability, and Discrete Math
- **The University of North Texas (TAMS)** *2016 - 2018*
  Graduated with Gold Cord and Honors diploma **GPA: 4.0**
  - Coursework: Systems Programming, Linear Algebra, Differential Equations I, II, and Complex Variables

Skills

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

Projects

- **Carma** 01/2019 - 02/2019
  Hands-free car-to-car communication ***React Native***
  - Used the **SmartCar** API to track vehicle locations and characteristics, allowing drivers to dictate messages to specific nearby vehicles through **Google Cloud** Text-to-Speech and Speech-to-Text APIs
- **TetrisBrain** 09/2018 - 10/2018
  Tetris Implementation and AI **Java**
  - 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 **JavaScript**
  - Built from scratch a new online tutoring platform using **Meteor** and **React**, leading to a **140% increase** in user registrations
  - Coordinated the automated selection and scheduling of volunteer tutors, allowing a **50% increase** in tutoring availability and a **290% increase** in tutor engagement

Experience

- **Physics Department, Southern Methodist University** *06/2017 - 08/2018*
  Student Intern
  - Performed physics research with 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

Extracurricular Activities

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