Garrett Gu

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github.com/garrettgu10

SKILLS

Languages
– Proficient in Java, JavaScript, and C
– Familiar with bash, Python, C++, PHP, and SQL

Frameworks
– Express.js, Meteor.js, React.js, React Native, React 360 (formerly React VR), Qt

EDUCATION

The University of Texas at Austin *2018 - 2021*
B.S. in Computer Science
GPA: 4.0

– Member of **Turing Scholars** Honors Program
– Recipient of the 2018 Corbyn Salisbury Endowed Scholarship
– Coursework: Architecture, Data Structures, Competitive Programming, Probability, 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

EXPERIENCE

Physics Department, SMU   2016 - 2017
Student researcher under Dr. Jingbo Ye
 – 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 aid detection of subatomic particles

PROJECTS

Carma   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   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   2017 - 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

EXTRACURRICULAR ACTIVITIES

UT Information and Systems Security Society   2018 - Present
Engineering Officer
 – Created Capture-the-Flag cybersecurity challenges for biweekly competitions
 – Prepared talks over security techniques and best practices