

# Jason Hirsch

jason-hirsch.github.io  
jasonhi10@aol.com | 972.322.9854 | jhirsch@tamu.edu

## EDUCATION

### TEXAS A&M UNIVERSITY

#### COMPUTER SCIENCE MAJOR

Class of 2024 | College Station, TX

### TAMS

#### COMPUTER SCIENCE TRACK

Graduated May 2020 | Denton, TX

GPA: 3.96 / 4.0

### MARCUS HIGH SCHOOL

May 2018 | Flower Mound, TX

GPA: 3.97 / 4.0

## LINKS

My Website: [jason-hirsch.github.io](https://jason-hirsch.github.io)

Github: [jason-hirsch](https://github.com/jason-hirsch)

LinkedIn: [jason-t-hirsch](https://www.linkedin.com/in/jason-t-hirsch)

## COURSEWORK

### UNDERGRADUATE

Computer Science I

Computer Science II

Computing Foundations I

Linear Algebra

Discrete Math

## SKILLS

### LANGUAGES

Proficient:

C++ • Python •

Experienced:

JavaScript • Java • C •

Familiar:

HTML • CSS •

### TECHNICAL SKILLS

Data Structures • Algorithms •

Git • GitHub •

Visual Studio • Windows 10 •

Qt • DirectX •

Maya 3d Modeling Software •

Photoshop •

IW Game Engine •

Microsoft Word • Microsoft Excel •

### SOFT SKILLS

Leadership • Public Speaking •

Problem Solving • Teamwork •

Attention to detail • Creativity •

## PROJECTS

### TETRIS AND TETRIS AI August 2020

Programmed Tetris using JavaScript and HTML. For the AI, I used a depth-first search transversal of the game board to test all possible moves, and weighed certain parameters to decide which move is best. By using a hash set and starting the algorithm at the first non-empty row, I was able to improve performance by 600%. The project is on my website <https://jason-hirsch.github.io>.

### DLL INJECTOR December 2019

Programmed a DLL (dynamic-link library) injector and designed/implemented a UI using Qt. The UI has many comfort features for users such as saving their settings, supporting 64bit and 32bit target executables, and providing an easy interface to customize the injection method. More details and screenshots of the UI are available on my website <https://jason-hirsch.github.io>.

## EXPERIENCE

### CONNECTED AUTONOMOUS VEHICLES LAB | UNDERGRADUATE RESEARCHER

Jan 2019 – May 2020 | Denton, TX

Worked with **Dr. Song Fu** and **Dr. Qing Yang** on connected autonomous vehicle research which involved using neural networks, a form of AI, to teach a car to drive itself. The car also connects to other vehicles in order to share data, making object detection more accurate while also enabling innovative applications of a multi-vehicle network. I specifically worked on the software that connected the vehicles together and to the edge nodes. Our research was featured by AutonomouStuff which can be seen at <https://autonomoustuff.com/products/case-studies/university-of-north-texas-expanding-cav-capabilities/>.

## AWARDS

2020 Brockman Scholar - Competitive scholarship awarded to only 50 applicants

2019 Perfect Chemistry SAT Subject Test Score

2018 Perfect ACT Score

2018 UIL Calculator State Competition Qualifier

2017 Won 4th place in Computer Science at the UIL District Championship

2016 Perfect Math II SAT Subject Test score

## VOLUNTEERING

### INTELLICHOICE MATH TUTOR | TUTOR

September 2018 – May 2020 | Denton, TX | 12 hours

IntelliChoice provides free math tutoring to underprivileged children. Volunteering through IntelliChoice has given me the opportunity to use my talent in math to help others.

### ELM FORK EDUCATION CENTER LEADER | GROUP LEADER

March 2019 – May 2020 | Denton, TX | 30 hours

Elm Fork provides field trip opportunities to Elementary School students to learn about Environmental Science and the impact humans have on the ecosystem. I lead students during their field trips.