# Maximus Chu

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## EDUCATION

**The University of Texas at Austin, Austin, TX** May 2022
*Bachelor of Science in Computer Science, Certificate in Scientific Computation and Data Sciences* GPA: 3.79

## RELEVANT COURSEWORK

- Data Structures
- Computer Organization and Architecture
- Principles of Computer System
- Algorithms and Complexity
- Parallel Programming
- Software Engineering
- Object Oriented Programming
- Artificial Intelligence
- Computer Vision
- Data Mining
- Natural Language Processing

## TECHNICAL SKILLS

**Programming Languages:** C/C++, Python, C#, Java, HTML/CSS/Javascript/Typescript/SQL, Google Colab/Jupyter Notebook, Angular, React.js, MATLAB, Fortran, Assembly language (x86 and Y86), OpenMP, MPI, Node.js.
**Other:** Experienced with Linux, Docker, unit test frameworks (Selenium and Jest), cloud services (AWS Amplify).
**Languages/Abilities**: Native in English and Chinese, intermediate in Korean, beginner in French and Latin, piano, violin.

## WORK EXPERIENCE

**Ethos Group,** Irving, Texas Summer 2021
*Software Engineer Intern*

- Create and integrate a full stack ASP.NET Core application into Ethos Group's overall ecosystem.
- Calculate a customer's potential savings by initiating a session using our application's API, then calling DealerPolicy's API through a QR code or generated email, and upon receiving savings, updates Ethos Group's Menu session, audit logs, internal databases storing the customer information, and generates PDFs with the savings to present and finalize the customer's deal.

**Self Employed Private Tutor**, Dallas, Texas May 2019 - February 2021
*High School Math, SAT/PSAT, Violin, Piano Tutor*

## RESEARCH

**Text Simplification in College Admissions** Spring 2022

- Researched the application of text simplification in college applications, a domain which is traditionally done by manually.

**Improving Question Answering Models** Fall 2021

- Researched the use of adversarial challenge sets on question answering models, applied to help address and mitigate model shortcomings and help shape models to become more resilient and less prone to fallacies.

## PROJECTS/ACTIVITIES

**Travelwise** Fall 2020

- Full-stack development, with collaboration between five developers to build a web application that reports COVID-19 statistics, flight data, as well as location data all essential for making travel plans.

**The Eldritch Knight** Fall 2020

- Created a fantasy first person shooter game using C++ and Unreal Engine, with AI enemies and procedurally generated maps.

**Infectious Disease Simulation Model** Spring/Summer 2020

- Application with parallelization of the realistic simulation of the spread of infectious diseases, based on the SIR model.

**MIT EnergyHack** Fall 2019

- Present solution at the MIT EnergyHack hackathon issued by Saint Gobain, concerning the transformation of the manufacturing of lithium ion batteries to enable a full circularity of the process.

**PintOS** Fall 2019

- Expanded PintOS to include a thread system, priority scheduling, argument passing on the stack, system calls for user programs, added virtual memory, and converted the existing single-thread file system into a multi-level indexed file system.

**Memory Allocation Library** Spring 2019

- Memory allocation library created through a C implementation, utilizing various adjustable policies.

**Huffman Coding** Fall 2018

- A compressor/decompressor created through a Java implementation utilizing the Huffman Compression Algorithm.

## HONORS/AWARDS

National Merit Finalist, University Honors, Texas All Region Orchestra (2015-2018), AP Scholar with Distinction.