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: 3.8

RELEVANT COURSEWORK

- Data Structures
- Computer Organization and Architecture
- Principles of Computer Systems
- 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, Java, C#, Javascript, Typescript, SQL, HTML, CSS, Fortran, Assembly (x86 and Y86).
Frameworks/Tools: Angular, React.js, MATLAB, OpenMP, MPI, Node.js.
Machine Learning Frameworks/Tools: Tensorflow, PyTorch, scikit-learn, Hugging Face, Google Colab, Jupyter Notebook.
Other: Experienced with Linux, Docker, unit test frameworks (Selenium and Jest), cloud services (AWS Amplify), Git.
Languages/Abilities: Native in English and Chinese, intermediate in Korean, beginner in French and Latin, piano, violin.
Work Eligibility: U.S. Citizen – Eligible to work in the U.S. with no restrictions.

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 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, improving performance up to 50%.

PROJECTS/ACTIVITIES (additional information on personal website)

Chess Engine and Learner   Summer 2022-Current
- Creating a Java chess engine for playing games to improve abilities, while implementing an AI that learns from one's moves.

Travelwise   Fall 2020
- Full-stack development, collaboration between five developers to build a web application that reports COVID-19 statistics, flight data, and location data essential for making travel plans; used Docker and Gitlab CI/CD, completed 100+ user stories.

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
- Realistic simulation of spread of infectious diseases, based on SIR model, adding parallelization improved efficiency by 75%.

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, potentially saving thousands of dollars.

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.

File Compressor   Fall 2018
- A Java compressor/decompressor utilizing the Huffman Compression Algorithm, improving data compression rates by 35%.

HONORS/AWARDS

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