KEVIN JIN

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EDUCATION

The University of Texas at Austin Austin, TX
B.S. Mathematics, Computer Science; Turing Scholars Honors Program *August 2019 - May 2023*
Cumulative GPA: 3.86/4.00

Coursework (= honors):* Algorithms*, Data Structures*, Computer Architecture*, Operating Systems*, Data Mining*, Computer Graphics*, Discrete Math, Linear Algebra, Real Analysis, Probability

EXPERIENCE

Rubrik Palo Alto, CA
Software Engineer Intern - Infrastructure *May - August 2021*
- Designed and trained machine learning and statistical models to predict internal resource order flow
- Implemented a framework from scratch to easily integrate any prediction model into the order fulfillment pipeline
- Built a simulator to monitor performance - lowered order latency by 80% and cut resource carryover costs by 40%

UT Department of Computer Science Austin, TX
Undergraduate Researcher *May 2020 - Present*
- Researched and analyzed different reinforcement learning techniques for robotic dexterous manipulation tasks
- Implemented a novel "curiosity-based" algorithm for better generalization to unknown objects
- Created testing pipelines to gather metrics on new models - saw decreased training time and improved performance

Integeos LLC Houston, TX
Software Engineer Intern *May 2018 - August 2019*
- Wrote image processing algorithms to perform automatic identification of unique features within seismic images
- Designed discriminatory networks to identify seismic anomalies, saving 50+ man-hours and increasing accuracy
- Created a company webpage to display experimental results, increasing website traffic by 150%

PROJECTS

AnimateMe *Physical animation tool* *Typescript*
- Implemented browser-based animation tool that allows for efficient object-skeleton manipulation and animation
- Researched and created physics engine to support cloth rendering, collision detection, light, gravity, and wind

CoronOS *Features for custom virtualized OS* *C/C++, assembly*
- Designed and built process ID infrastructure for signals, thread pooling, and increased kernel security
- Implemented memory mapping and page tabling schemes for processors and to support context switched memory
- Allows for encrypted and concurrent file reads, writes, and access permissions through custom kernel system calls

Webcrawler *Web crawler and query engine* *Java*
- Performs crawling and indexing heuristic to efficiently store information of connected networks of pages
- Utilizes parse-trees and data-organization techniques to interpret search queries and find relevant web pages
- Allows for dynamic queries with grammar and logic to increase search flexibility and comprehensiveness

AWARDS AND ACTIVITIES

Turing Scholars Student Association *Member* *August 2019 - Present*
- Academic organization that hosts CS related talks, events, and research opportunities

UT Programming Contest (UTPC) *Member, Contestant* *September 2019 - Present*
- Competitive programming organization that hosts monthly programming competitions and talks

American Invitational Mathematical Examination *6-time qualifier* *2014 - 2019*
- Invitational math competition for top 5% of scorers on AMC 10/12

LANGUAGES & SKILLS

Proficient Java, C/C++, Python
Exposure Typescript, Haskell, Rust, SQL, Javascript, CSS, html, Pytorch, Docker, Django

INTERESTS

Ultimate Frisbee: Practiced with 15 person team three times a week; UT intramural semis (2019), finals (2020)
Baking: Maintained sourdough starter for 20+ months to bake bread weekly; experimented with pies and pastries
Running: Trained for and participated in 5k and 10k races (Grant-A-Starr, Foam-Glow, Houston Turkey Trot)