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: 3.88/4.00

Relevant Coursework: Data Structures, Computer Architecture, Operating Systems, Discrete Math, Linear Algebra, Real Analysis, Probability, Multivariable Calculus, Competitive Programming

EXPERIENCE

UT Department of Computer Science Austin, TX
Undergraduate Researcher *May 2020 - August 2020*
- Trained and tested deep neural networks on TACC supercomputers to analyze self-assembly of viral capsids
- Implemented network architectures (VAEs, GANs) to create comparative metrics and find optimal structure
- Built generative models that created and simulated synthetic molecules to disrupt viral capsid assembly

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%

Rice University Houston, TX
Research Assistant *June - August 2018*
- Analyzed tectonic plate velocities using Morvel satellite database, resulting in discovery of Malpelo Microplate
- Automated azimuth vector labeling and wrote scripts to visualize and perform regression analysis on data

PROJECTS

Recime *Digital recipe-storage and organization tool* *Python*
- Scrapes and stores relevant information from online and custom recipes using time and space-efficient algorithms
- Allows for search of specific recipes using keywords like ingredients, cooking techniques, and personal notes
- Applies unique resource file storage and serialization hierarchy, allowing dynamic features like tags and cookbooks

Webcrawler *Web crawler and query engine* *Java*
- Performs custom crawling and indexing heuristic to efficiently store information of isolated 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

Oil Well Modeling *Statistical analysis and modeling of oil data* *Python*
- Analyzed existing oil wells to design a prediction and optimization algorithm for future drilling sites
- Proposed locations and features for 10 future oil wells, resulting in a 30% increase in production, to ConocoPhillips

AWARDS AND ACTIVITIES

Turing Scholars Student Association *Member* *August 2019 - Present*
- Academic organization that hosts CS related talks, events, and research opportunities (approx. 200 members)

Information and Systems Security Society (ISSS) *Member, Contestant* *September 2019 - Present*
- Computer security organization that hosts biweekly hacking competitions (capture the flags) 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, Python (Numpy, Pandas, Keras)
Exposure C++, Haskell, Rust, SQL, Javascript, CSS, html

INTERESTS

Ultimate Frisbee: Practiced with 15 person team three times a week; UT intramural ultimate semi-finalists (2019)
Baking: Maintained sourdough starter for 20+ months to bake bread weekly; experimented with pies and pastries
Running: Trains for and participates in 5k and 10k races (Grant-A-Starr, Foam-Glow)