

# KEVIN JIN

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## EDUCATION

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**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

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**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

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**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

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**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

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**Proficient**      Java, C, Python (Numpy, Pandas, Keras)

**Exposure**      C++, Haskell, Rust, SQL, Javascript, CSS, html

## INTERESTS

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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)