Grant Skaggs

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Site: grantskaggs.com

Experience

Sept 2022 - Present — **Applied Intuition**, *Software Engineer*
- Created a new **Python** service for translating map data across various industry map formats
- Developed using **React** and demoed to customers a new tool for autonomous vehicle simulation
- Migrated map querying infrastructure to **Apache Spark,** reducing query latency by as much as 20x

Summer 2020 — **Duolingo**, *Software Engineering Intern*
- Created a weekly in-app prize for premium subscribers of the iOS app, using **Swift** and **UIKit**
- Developed the backend API in **Python, Java,** and **Kotlin;** recorded prize usage in a **SQL database**

Summer 2019 — **University of Texas at Austin**, *Undergraduate Research Assistant*
- Applied **recurrent neural networks** to cache **data prefetching** in modern computer architectures
- Developed and tuned a two-layer **LSTM** neural model using **TensorFlow** and **Python** to prefetch addresses

Education

May 2022 — **University of Texas at Austin**, *Turing Scholar Honors Program*

B.S. Computer Science & Philosophy Minor; **GPA: 3.96**

Coursework: Algorithms, Data Structures, Data Mining, Operating Systems, Computer Architecture, Cryptography, Quantum Computing, Graphics, Physical Simulation, Competitive Programming

Projects

Spring 2022 — **Genetic Algorithms for the Simulation of Flower Pigmentation Patterns**, *Python, C++*
- Applied genetic algorithms to fine-tune parameters for the reaction-diffusion differential equations which produce flower pigmentation patterns
- Published as a **20-page honors thesis** at the University of Texas; read more at grantskaggs.com/thesis

Summer 2020 — **Pyxeled**, *Python*
- Applied **machine learning** fundamentals to transform normal photographs into aesthetic pixel art
- Implemented intelligent **clustering alogorithms** to preserve image features at lower resolutions and limited color palettes; published a webpage gallery to exhibit generated pixel art

Leadership

Spring 2021 - Aug 2022 — **Texas 4000 for Cancer**, *Equipment and Gear Manager*
- Coordinated training and logistics for a **4000 mile charity bike ride** from Austin to Alaska
- Repaired bicycles during our 70-day bike ride and advocated for general gear maintenance

Spring 2021 — **University of Texas Computer Science Department**, *Teaching Assistant*
- Held office hours and graded projects for an honors computer graphics course

Skills

Proficient: Python, C/C++, Typescript, React, Bash

Familiar: Kubernetes, Git, Java, SQL, HTML, CSS, Numpy, Pandas

Honors / Awards

Academic: National Merit Scholar, National AP Scholar, High School Valedictorian

STEM: AIME Qualifier, Science Olympiad Gold Medalist, HackTX CDK Global Award, USACO Gold Ranking