JUSTIN SANTOS

580.284.7616 | stinsan@ou.edu | Portfolio | GitHub | LinkedIn

EDUCATION

MASTER'S DEGREE — THE UNIVERSITY OF OKLAHOMA | NORMAN, OK Aug 2020 – Expected May 2021

- Master of Science in Computer Science
- 4.00/4.00 GPA

BACHELOR'S DEGREE — THE UNIVERSITY OF OKLAHOMA | NORMAN, OK Aug 2017 - May 2020

- Bachelor of Science in Computer Science with a Minor in Mathematics
- Summa Cum Laude
- 3.91/4.00 GPA

SKILLS

- **PROGRAMMING LANGUAGES**: C, C++, C#, Java, Python, R, HTML, CSS, JavaScript, SQL
- **TECHNOLOGIES**: Git, Jira, Confluence, Maven, Flask, Selenium, ROS, Unity, LaTeX
- **MISCELLANEOUS:** RESTful architectures, model-view-controller (MVC), AI/ML fundamentals

EXPERIENCE

SOFTWARE ENGINEER IN TEST INTERN, INSTITUTIONAL SHAREHOLDER SERVICES | NORMAN, OK 2020 - Present

- Developed automated regression tests using Selenium in Java to evaluate the performance of a flagship web application.
- Designed and implemented a backend framework to consume a REST API that manipulated the customer relationship management system to fill missing functionalities that were needed for new automated regression tests.
- Formulated and performed functional testing for new application releases.

TECH TEACHER, KENNEDY TECH TEACHERS | NORMAN, OK 2019 - 2020

- Taught weekly lessons in various STEM-related topics, such as binary arithmetic, animal bone structures, and 3-D printing to fourth and fifth graders at a local elementary school.
- Collaborated with teachers at the elementary school to procure a sound lesson plan.

PROJECTS

HACKLAHOMA 2021: ANTI-HATE SPEECH GOOGLE CHROME PLUGIN

- Participated in a 24-hour hackathon hosted by the University of Oklahoma in 2021 where my team and I created a Google Chrome plugin designed to completely hide Tweets containing hate speech while also censoring vulgar words.
- Utilized a natural language processing algorithm built with scikit-learn and spaCy to classify Tweets as hate speech or not; the model received 89% accuracy on testing data.

HACKLAHOMA 2020 : MAZETRIX

- Participated in a 24-hour hackathon hosted by the University of Oklahoma in 2020 where my team and I designed and created a visualization tool for maze generation and maze solving algorithms using HTML, CSS, and JavaScript.
- Implemented a JavaScript backend with custom graph and node data structures to facilitate maze generation and traversal functions.

OU GAME JAM 2019: BIRDS HATE BOMBS

- Built an infinite runner game created using the Unity game engine where the player controls a flying bird trying to avoid levitating bombs for the Fall 2019 Game Jam hosted by OU's Game Developers Association.
- Wrote scripts for game mechanics and character control in C#.

GLASSES VISUALIZER

- Created a glasses simulator in Python where the user can manipulate an input image to make it blurrier to simulate varying levels of visual acuity or change the image colors to represent colorblindness.
- Utilized a monocular depth estimation tool along with a modified variation of the Gaussian blur algorithm to create an accurate depiction of nearsightedness and farsightedness.

SORTING ALGORITHM VISUALIZATION

- Designed and constructed a Python program to aid in the visualization of sorting algorithms by randomizing a user-input image and outputting a video of the resorting process.
- Implemented several sorting algorithms such as quicksort, insertion sort, and bubble sort.

HONORS RESEARCH PROJECT – QUADRATIC SIEVE ALGORITHM

- Conducted a semester-long, self-learning research project with Dr. Qi Cheng from the University of Oklahoma about the quadratic sieve integer factorization algorithm.
- Implemented the algorithm from scratch using Python with the capability to find the prime factors of a 21-digit number (quintillions) in less than 1 minute using an Intel i7-8750H, 2.2GHz CPU.