Andrew Nolte

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EDUCATION

UT AUSTIN

BS in Computer Science
Turing Scholars Honors Program
May 2022 | Austin, TX
College of Natural Sciences
Major GPA: 3.86 / 4.0

LINKS

Github:// **AndrewNolte**
LinkedIn:// **andrew-nolte**
Website:// **andrewnolte.github.io**

COURSEWORK

FIRST SEMESTER

Data Structures (Honors)
Discrete Math (Honors)

SECOND SEMESTER

Computer Architecture (Honors)
Intro to CS Research (Honors)
Freshman Research Initiative: Robotics

MISC. PROJECTS

Tamuhack 2019: Carma
Partial ARM Emulator
Critters (interpreter)
Treaps Implementation
Boggle
Markov Text Replicator
Image Manipulation

SKILLS

PROGRAMMING

Over 5000 lines:
Java • C++ • Robot Programming • Python
Over 1000 lines:
C • Web Stack • React.js • Verilog
Familiar:
React Native • SQL

PROJECTS

TOYOTA AR APP March 2019

Currently on a team developing Augmented Reality app for Toyota, used for identifying buttons or components on the dashboard and pulling up useful information for the user.

HACKDFW 2019: SYNTYPE Feb 2019

Built recurrent neural network in Python to identify difficult keystroke patterns from user keyboard input in real time.
Scraped and parsed online Java repos to generate random Java templates for difficult patterns to be inserted, all delivered on frontend done in React.js

WEBCRAWLER AND QUERY ENGINE Dec 2018

Crawled and efficiently indexed a web into a custom data structure.
Made query engine using shunting yard algorithm, supporting complex boolean logic queries.

TETRIS, TETRIS AI Oct 2018

Programmed Tetris game and Tetris AI in Java, trained using genetic algorithm.
Used random vectors and vector combination to generate local dominant species that asymptotically approached their maximum potential.

MOTION PLANNER APPLICATION Fall 2018

Used processing to create customizable application for planning robot paths.

ROBOT PROGRAMMING FOR FRC ROBOTICS, PROGRAMMING CAPTAIN 2016-2018

Used OpenCV to identify multiple objects and guide the robot autonomously.
Programmed autonomous path planning using multiple curve and PID techniques, trapezoidal and sinusoidal motion plans

EXPERIENCE

CHEGG TUTORS | Tutor

May 2018 – Dec 2018 | Spring, TX

- Tutored mainly college students in math and computer science
- Conducted UX interview with researchers, pointed out bugs and suggested changes

MATHNASIUM | Tutor

Jan 2018 – Aug 2018 | Spring, TX

- Tutored students aged 5-17 in math, worked with student database

HONORS / ACTIVITIES

2018-	Texas Aerial Robotics
2018-	Association for Computing Machinery
2016-2018	Vortx 3735 (Klein ISD Robotics Team), Programming Captain Lead a group of programmers in developing robot code for FRC team
2010-2018	Boy Scouts of America, **Eagle Scout** with bronze palm
2015-2018	Zeta Omicron (High School CS honor society) Placed in various UIL CS competitions, 8th in HP CodeWars 2017