Thomas Lang

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EDUCATION

Georgia Institute of Technology, Atlanta, GA .... GPA: 3.9/4.0 | AUG 2018 — MAY 2022
Candidate for Bachelor of Science in Computer Science

SKILLS

PROGRAMMING:	Java, Python, C++, Scala, Matlab, HTML, CSS, Javascript
SOFTWARE:	Git, Vue.js, Node.js, React, Bootstrap, Android SDK, Linux, Arduino, ROS, Jekyll
COURSEWORK:	Object oriented programming, Data structures & algorithms, Object oriented software design

EXPERIENCE

Georgia Tech Research Institute — *Internship* | MAY 2019 — PRESENT
- Rewrote a codebase of Matlab scripts in Python, creating documentation and improving scalability.
- Increased existing algorithm efficiency by 400% and developed new algorithms for LiDAR sensors to better classify land objects and visualize seafloor surfaces from a plane.

Georgia Tech's Automotive LiDAR Research Lab — *Research Assistant* | JAN 2019 — PRESENT
- Integrated ROS into the automotive computer system to simplify code structure, run python files in parallel and implement vital localization and path-finding algorithms.

NASA Glenn Research Center — *Internship* | MAY — JUNE 2018
- Proved a machine learning algorithm's feasibility in a microcontroller by training the algorithm to control a small shoe-sized car and to avoid obstacles by reacting to ultrasonic sensor readings.

Cleveland State University's Math Corp — *Teaching Assistant* | SUMMERS 2016 & 2018

PROJECTS

Music Discovery Webapp — *Personal Project* | JUNE 2019 — PRESENT
A webapp that finds new music based on user prefrences.
- Uses the Spotify API to find music for users based on mood, local weather, running speed and more.
- Built using Node.js for the backend and React and Bootstrap for the frontend.

"RISK" Boardgame Webapp — *CS2340 Team Project* | JAN — MAY 2019
A multiplayer webapp version of the boardgame "RISK".
- Designed an interactive front-end for the webapp using Vue.js, Bootstrap and HTML Canvases.
- Used a Websocket API with a Play Framework backend to allow multiple users to play together.
- Worked in a team of five, using Git for version control and Agile development to meet deadlines.

Discord Conversation Analyzer — *Personal Project* | SEPT — NOV 2018
An application for Discord which provides information about prior conversations.
- A Python application that uses chat logs and natural language processing algorithms to extract keywords about prior conversations, saving user time in staying caught up with missed discussion.

Hyland Software Hackathon — *First Place Winner* | JAN 2017
Created an android mobile app that combines walking and video-games to encourage exercise

INVOLVEMENT

Robojackets — *Robocup Software Team Member* | AUG 2018 — PRESENT
- Designed and implemented a new defense strategy for Georgia Tech's autonomous robot soccer team to improve an out-dated system before competition.
- Volunteered during the IRIM national robotics week to introduce young students to robotics.

Boy Scouts of America — *Eagle Scout* | JAN 2010 — APR 2018