

# Thomas Lang

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## EDUCATION

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

## WORK EXPERIENCE

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MAY 2019 - JUN 2019 | **Georgia Tech Research Institute**, Research Assistant

- Rewrote a codebase of Matlab scripts in Python, creating documentation and improving scalability
- Increased existing algorithm efficiency by 230% and developed new algorithms for LiDAR sensors to better classify land objects and visualize underwater surfaces from a plane
- Developed new features for a proprietary data visualization software in C++

MAY 2018 - JUN 2018 | **NASA Glenn Research Center**, Student Researcher

- Tested an algorithm's effectiveness in a micro-controller by training a small car to avoid obstacles

## PROJECTS

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AUG 2019 - PRESENT | **Running Music Web Application**  
*A webapp that finds music based on running speed and band input*

- Built the backend with Node.js using the Spotify API for song information
- Used React.js and bootstrap to create an appealing webpage for user interaction

JAN 2019 - MAY 2019 | **Risk Web Application**  
*A multiplayer webapp version of the boardgame "RISK"*

- Built the front-end with Vue.js and Bootstrap, using a Konva.js canvas to render the game
- Used a WebSocket API with a Play Framework backend to allow multiple users to play together

AUG 2018 - JAN 2019 | **Discord Conversation Analyzer**  
*A python app that describes prior conversations using natural language processing*

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

## RESEARCH

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JAN 2019 - PRESENT | **Georgia Tech Automotive Research Lab**, Software Team Lead

- Managed and advised a team of eight in completing various programming tasks and projects on time
- Used the Robot Operating System to simplify code and implement self-driving algorithms

AUG 2019 - PRESENT | **Georgia Tech Research Institute**, Research Assistant

- Simulated LiDAR data and used machine learning to improve accuracy in LiDAR data processing

## SKILLS

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PROGRAMMING: Java, Python, C++, Javascript, HTML, CSS, Scala and Matlab  
SOFTWARE: Git, Bootstrap, Node.js, React, Vue.js, Android SDK, Linux, Arduino, ROS, Jekyll

## INVOLVEMENT

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AUG 2019 - PRESENT | **The Agency**, Georgia Tech's Machine Learning Club

AUG 2019 - PRESENT | **WREK Radio**, Georgia Tech's Student Radio Station

AUG 2018 - AUG 2019 | **Robojackets**, Georgia Tech's Robotics Club

- Designed and implemented a new defense strategy for Georgia Tech's autonomous robot soccer team

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