

# Theo Lincke

## SUMMARY

I am an Applied Math and Computer Science major with 3+ years experience in network programming and flight control software with an interest in software simulation for nonlinear dynamics and chaos theory.

I am looking for a software engineering or applied mathematics internship or research position for the summer 2021 term.

## CONTACT

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Portfolio: <https://tlincke125.github.io>

## EDUCATION

University of Colorado, Boulder  
Boulder, Colorado  
2018-2022

**BS Computer Science**  
**BS Applied Mathematics**

Current GPA: 3.905

## SKILLS

### Languages:

C, C++, Python, Matlab, Bash, Java

### Linux:

Arch, Gentoo, Ubuntu LFS

### Frameworks:

ROS/ROS2, ZeroMQ, Sockets

### Electrical Engineering:

Arduino, Platformio, U-Boot

### Mathematical Methods:

Nonlinear ODE / PDE Simulation

## PERSONAL PROJECTS

ODE Solver in python with adaptive time step and vectorized inputs

Linear Algebra and Neural Network Library from the ground up in C++

Virtual Any Dimensional Rubik's Cube Solver in Java

SVD Facial Detection System in MATLAB

Multi Platform / Language Message passing framework with a ZeroMQ backend

## PROFESSIONAL EXPERIENCE

### Rincon Research Inc

#### Software Engineer Intern

June 15 2020 - August 8 2020

- Worked on a team of electrical engineers to design a GUI based software defined radio simulator.
- I designed an advanced backend asynchronous networking system to pass upwards of 9 million data points per second

### Kelvin Inc

#### Software / Embedded Engineer Intern

May 15 2019 - August 28 2019

- Worked during the forefront of a real time initiative.
- Provided case studies on RTEMS, FreeRTOS and PREEMPT\_RT linux kernel patch on x86 and arm architectures.

### CU Boulder Robotic Mining

#### Lead Embedded Software Engineer

August 2018 - Present

- Innovated application based modular robotic framework using ZeroMQ sockets and a dedicated serialization library.

### Colorado Taekwondo Institute

#### Martial Arts Instructor / Trainer

July 2014 - August 2017

- After receiving my junior (2014) black belt, I trained in leadership and communication classes for two years before taking on my first class working with 5-9 year old beginners.