Theo Lincke

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E: thli2739@colorado.edu Portfolio: https://github.com/tlincke125/portfolio

Education

CU Boulder *Expected Graduation: May 2022*
BS Computer Science, BS Applied Mathematics *GPA: 3.911*

Leadership and Industry Experience

Kelvin Inc
Software / Embedded Software Engineer Intern
May 15 2019 - August 28 2019

- *Worked during the forefront of a real time initiative. Providing case studies on RTEMS, FreeRTOS and PREEMPT_RT linux kernel patch on x86 and arm architectures.*

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*

Colorado Taekwondo Institute
Martial Arts Instructor / Trainer

- *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.*

CU Boulder Robotic Mining
Lead Embedded Software Engineer
August 2018 - Present

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

Personal Projects

- ➔ *ODE Solver in python with adaptive time step and vectorized inputs* *github.com/tlincke125/nonlinear_ODE_solver*
- ➔ *Navigation and localization stack for an autonomous robot* *github.com/curmc/Sentinet_cpp*
- ➔ *Linear Algebra and Neural Network from the ground up in C/C++* *github.com/tlincke125/cTensor*
- ➔ *Virtual any dimensional rubik's cube solver in Java* *github.com/tlincke125/rubiksCube*
- ➔ *SVD Facial detection system in MATLAB* *github.com/tlincke125/eigenfaces*

General Skills

Languages: C, C++, Python, Matlab, Bash, Java - Ability to quickly learn new languages
Software Frameworks: Linux (Arch, Gentoo, Ubuntu, LFS), ROS/ROS2, C/C++ Standard Libraries, ZeroMQ, Sockets
Electrical Engineering: Kicad / EAGLE, Teensy / Arduino, Platformio, U-Boot, JTag, Instrumentation
Applied Math: Numerical Analysis, Complex Analysis, PDEs ODEs modeling