

Christopher Erickson

I am a true autodidact, self-driven learning is my life's passion
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EDUCATION

Colorado State University

Bachelor of Science - Electrical Engineering

Fort Collins, CO

2017 – Present

University of Northern Colorado - Frontier of Science Institute (FSI)

Undergraduate Research - Computer Science, Data Analysis, Geographic Information Systems (GIS)

Greeley, CO

2016 – 2017

EXPERIENCE

NSF Undergraduate Researcher

Colorado State University - Branislav Notaros's Lab

2023 – Present

Fort Collins, CO

- Worked on various Uncertainty Quantification (UQ) programs in MATLAB and Python
- Helped develop novel approaches to UQ in Computational Electromagnetics (CEM)
- Managed a multi-person code repository for the research team

Consultant

Private Contractor

2015 – Present

Denver, CO

- Using the Blender 3D modeling software, designed various models. Designed and rendered various animations (e.g. opening animations for YouTube Content Creators).
- Have consulted on, as well as designed websites, using a wide variety of tools ranging from pure HTML, CSS, JavaScript; all the way up to high level editors like Carrd co, or WordPress.
- Built logos and branding guides. Delivered Vector and Raster graphics, and custom animations. Built official internal and external facing documents. Such as surveys and fill-able medical records documents. Many of these documents have editable code to create a highly customized and editable end result.
- Repaired electronics from 2000 to present, including: PlayStations, Tablets, Smartphones, Xboxs, Amplifiers etc. Many of these repairs involved SMD components and techniques.
- Repaired over 200+ vintage (1920 – 2000) audio gear including : Amplifiers, DVD Players, CD Players, VCRs, Cassette Decks, Walkmans, Discmans, Turntables, Radios, and many more. Worked on external modifications as well, which were engineered and implemented.
- Performed signal acquisition and analysis on EEG and EKG data, for Brain Computer/Machine interfaces.
- Designed and prepared in house PCBs for a wide range of applications. Experienced in handling chemicals and lab safety.
- Performed full failure analysis of materials and circuits, including stress testing of electrical components and structures.

Audio Technician

Bizarre Bazaar

2020 – Present

Fort Collins, CO

- Evaluate and repair various audio electronics, ranging from Turntables to Amplifiers.
- Read and interpret service manuals and bulletins to maintain effective and safe operation of electronics.
- Appraise broken and new electronics for buying and selling both in store and online.
- Update and Upgrade various electronics to improve safety and functionality.

Assistant Coordinator

Metropolitan State University of Denver - Honors Program

2018 – 2021

Denver, CO

- Managed day-to-day program operations. Including but not limited to, event coordination, marketing and ad hoc task.
- Managed effective budget models for program. Analyzing financial information (e.g. revenues, expenditures and cash management)
- Coordinated logistical matters for educational workshops, fulfilling reporting requirements, and providing intellectual leadership.
- Assists Program Director in administrative tasks such as calendaring, correspondence and program representation.
- Coordinated long-term projects to provide information and educational programs to students
- Wrote Standard Operating Procedures (SOP) for incoming students and employees.

Supervisor

2018 – 2020

Denver Museum of Nature and Science

Denver, CO

- Virtual Reality Technician/Host - Interacting with 200+ guest a day
- Support and mentor new employees/associates by training in all aspect of museum operation. (e.g. Front Desk, IMAX, Virtual Reality, Planetarium, Retail, Event Services.)
- Overseeing staff of 20 direct reports.

Supervisor

2014 – 2018

Sierra Trading Post

Denver, CO

- Maintained store organization/inventory, customer service (including order fulfillment)
- Covered all aspects of retail operations including but not limited to: Front End, Gear, Footwear, Apparel, Back-end Operations, Order Fulfillment, Data Analyst
- Oversaw team of 15 employees

PROJECTS

Petal Power, a Flower Inspired Solar Charging System | *Colorado State University*

2022

- Designed and built a complex mechanical system for protecting solar panels during severe weather.
- Integrated a custom solar system into the mechanical design to create a efficient synergy between them.
- Was chosen as one of the top projects of the class, and was presented to multiple heads of industry.

Colorado CubeSat | *Metropolitan State University of Denver*

2021

- Led a team of students to develop a telecommunications system for a 2-unit Cube Satellite
- Designed and implemented a radio communication system that adhered to local and national government standards (AARL and FCC)
- Designed a PCB layout and Materials list, and worked with PCB manufacturers to build a FCC approved circuit board.

Computer Vision Based Autonomous Driving Model | *Metropolitan State University of Denver*

2019

- Designed and built a computer vision based autonomous vehicle to model real world benefits.
- Integrated a new radio control scheme into an existing control system.
- Presented research at the Western Regional Honors Conference.

Using Geospatial Analysis to Find Potential Windfarm Locations in Kansas | *FSI at UNC*

2017

- Sourced geospatial data for use in a custom built ArchGIS algorithm to determine the optimal positioning of windfarms.
- Researched local and national government regulations on windfarm constructions. I.E. FAA, FCC, USGS etc.
- Presented research to Excel energy, the state of Kansas, and many other interested parties.

TECHNICAL SKILLS

Languages: MATLAB, C, C++, C, Java, JavaScript, HTML, Python, Bash Scripts, Lua, Visual Basic/Excel Programming Language, ASL

Software: Solidworks, Onshape, Cadence Virtuoso, Intel Quartus, MultiSim, PrusaSlicer, Blender, Microsoft Suite, Adobe Creative Suite, Google Workspace Suite

Operating Systems: Linux, Windows, MacOS

Certifications: First Aid/CPR, Childcare Certification - Red Cross, Wilderness Emergency Response, Microsoft Excel Certified, Ultra and High Vacuum System Certification by Kurt J Lesker

Physical Skills: Surface-Mounted Component Removal and Soldering, Through-Hole Removal and Soldering, Trained in Soldering to NASA standards, and many other skills; I am a quick learner