# Daniel Garcia

970-632-3333 • daniel95@rams.colostate.edu • RetroDISTORT
daniel-garcia-rd • retrodistort.github.io

## Education

- **Colorado State University** — **Fort Collins, CO**
  *Bachelor of Science in Computer Science* — *Graduated May 2022*
  - **Relevant Coursework:** Software Engineering, Machine Learning, Big Data, Object Oriented Design, Operating Systems, Algorithms and Optimization, Low-Level Programming, Compilers, Databases, Computer Architecture, Assembly, Linear Algebra, Calculus, Technical Writting
- **Front Range Community College** — **Fort Collins, CO**
  *Associates of Science* — *Graduated May 2019*
- **CETI Colomos** — **Guadalajara, Jal**
  *Recognition as a Technologist in Automation and Instrumentation* — *Graduated May 2015*
  - **Relevant Coursework:** Digital Circuits, Instrumentation, Technical Drawing, High Power Circuits, PLCs, Microcontrollers, Pneumatics, Hydraulics, Process Controls, Industrial Robotics, Industrial Calibration, Thermodynamic Processes

## Technical Skills

- **Programming Languages:**
  - Procedural — Bash, **C**, Matlab, SQL
  - Object-Oriented — **C++**, C#, Java, **JavaScript**, Python, MicroPython, VB, Rust
  - Functional — Scala, Lisp, Elisp, **LaTeX**
- **Libraries and Frameworks:**
  - Web Based — ReactJS, NodeJS
- **Mechatronics:**
  - Microcontrollers — Pic, Atmel, Xtensa, ARM
  - PLC — Allen Bradley, Sismatic
  - Communication — SPI, CAN, I2C, I2S, BLE, WiFi, RS232, Sockets, Websockets, WebRTC
  - Other Skills — 3D printing, SMD soldering, Electronics Diagnostics, CNC Routing, Pneumatics, Hydraulics
- **Software:**
  - Automation & Design — FluidSIM, AutoCAD, RSLogix, EasyEDA
  - Other — Unix-based OS, Emacs, Windows, Git

## Work Experience And Notable Projects

- **Hardware and Software Engineer — Research and Development** — **Fort Collins, CO**
  *Vaisala* — *Jan 2022 – Jul 2022*
  - Undergraduate Electrical and Computer Engineer, Radar Data Acquisition Development and Design
  - Worked with GPS-synchronized broadband data acquisition system for earth science applications
  - Achieved to designed and develop the prototype for high speed data analysis with reduced design complexity
- **Pi Bot** — **v3.0.0 Released Aug 2022**
  *Github.com/RetroDISTORT/Pi-Bot*
  - Designed a modular Raspberry Pi-based robot with machine learning capabilities through WebRTC (video/audio)
  - Includes capability for remote access through web-sockets or the mobile friendly web-app
  - Built with Python written applications such as web radio, music spectrum analyzer, Bluetooth speaker, and more
- **Dawn and Dust** — **v2.1.0 Released Jun 2021**
  *Github.com/RetroDISTORT/Dawn-and-Dust*
  - Android game made with game maker studio using a version of C#
  - Achieved to build a top-down-view puzzle game with google play integration
- **Smart Watch** — **v3.0.0 Released Jan 2021**
  *Github.com/RetroDISTORT/Smart-Watch*
  - ESP32-based smartwatch for IoT, testing, home automation, mobile apps, and more
  - Designed from the bottom-up using C and micro python for the applications and AutoCAD for the case
  - Successfully built a working prototype from component selection and PCB design to coding applications