Daniel Garcia

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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

Firmware Engineer and Integrator — **Vancouver, WA**
HP — *Jun 2023 – Present*
- Work as a developer for secure low level firmware and application firmware
- As a firmware integrator, I work with multiple disciplines to organize, delegate, test, and release firmware
- Worked with languages such as Python, C/C++, Bash, Shell, and tools such as GDB, JTAG, including project tracking software

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

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