

# Austin Jones

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**Objective:** Computer Engineering Senior looking for full time position for Jan 2022. Interested in working with Embedded Systems, Operating Systems, IoT, and Networking.

## Skills

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Working Knowledge: POSIX, Xilinx MPSoCs/FPGAs, Petalinux, Intel FPGAs, ARM MCUs  
Professional Languages: C++, C, C#, Python, Shell, VHDL  
Recreational Languages: Rust, Haskell, BF  
Office Skills: Excel, GIMP, Git, Gerrit, Visio, L<sup>A</sup>T<sub>E</sub>X, Markdown, Groff

## Education

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**University of Tennessee Knoxville** Anticipated Graduation: Dec 2021  
Bachelor of Science in COMPUTER ENGINEERING GPA: 4.0/4.0

*Current* | **Engineering Professional Practice Office** - University of Tennessee  
AUG 2019 | *Student Ambassador*  
Assist UT engineering students to improve resumes, interview/inter-person skills, and overall professional skill. Work with other ambassadors to facilitate networking events and career fairs.

## Work Experience

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*Current* | **Garmin International** - Olathe, KS  
MAY 2021 | *Embedded Software Intern*  
Developed code for microcontroller to control power on logic for an unreleased product.

- Utilized MCU to monitor main board status and determine the power state of the board.
- Referenced PCB schematics and MCU documentation to integrate software and hardware.
- Gained strong familiarity with ARM/STM microcontrollers.

  
MAY 2021 | **Siemens Molecular Imaging** - Knoxville, TN  
JAN 2019 | *Electrical R&D Intern*  
Conduct projects, both individually and collaboratively, to provide value to the ER&D team:

- Presented findings from work to a large technical audience to demonstrate the validity of a new system architecture.
- Long term projects:
  - Utilize a Xilinx MPSoC to test limitations of ARM Core processing vs an FPGA implementation to assess cost reductions.
  - Used multiple Raspberry Pis with off the shelf networking hardware to conduct data path tests and compare the bandwidth with current custom solutions.
  - Developed Firmware, Embedded Software, and Application Software for a unit test fixture that is used during production of PET electronics.
- Assist engineers with general tasks (e.g. wiring, testing, Python scripts, documentation).

## Personal Projects

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**Smart Mirror** - Python, Raspberry Pi

Built a mirror with a monitor and Raspberry Pi behind 2-way glass. Forked a Smart mirror repo to add custom features. Fabricated frame and assembled the Mirror with friends.

**Light Sign** - Rust, Raspberry Pi, Arduino

Created a light sign with a that would display text input from a webserver on the sign. Rust application, on Raspberry PI, ran custom webserver and spoke to the Arduino. Arduino read in over UART and displayed text on the LED matrix sign.

**Add board support for Custom Keyboard to Custom Firmware** - C, ZMK

Added support for the Reviung 39 (custom keyboard) to the ZMK wireless keyboard firmware.

## Interests and Hobbies

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- Raspberry Pi, Arduino, Self-Hosting, IoT Projects, 3D Printing
  - VolHacks, Custom Mechanical Keyboards, Basic Electrical Projects
  - Rock Climbing, Cooking, Specialty Coffee, Digital Art