Austin Jones

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Objective: Software Engineer with experience in Embedded Software and Cloud Development looking for cool problems to solve.

Skills

Cloud Technologies:	Docker, K8s, AWS, GitHub Actions, gRPC, Postgres
Embedded Technologies:	ARM MCUs, Xilinx FPGAs/MPSoCs
Project Management:	GitHub, GitLab, Jira, Confluence, Agile
Languages:	C, Rust, C#, C++, .NET, Go, Shell, Python, VHDL

Education

University of Tennessee Knoxville — Graduation: Dec 2021
Bachelor of Science in Computer Engineering — GPA: 4.0/4.0
Graduated top student of the John D. Tickle College of Engineering.

Dec 2021 - Aug 2019 | **Engineering Professional Practice Office** - University of Tennessee
Student Ambassador
Assist UT engineering students to improve resumes, interview/inter-personal skills, and overall professional skills. Work with other ambassadors to facilitate networking events and career fairs.

Work Experience

Current - Jan 2024 | **Uster** - Knoxville, TN
Work to make applications and solutions to facilitate Textile Grading devices
Software Engineer: Jan 2024 - Current

- Create a data aggregating application and statusing application delivered to customer.
- Developed algorithms to help enhance the data product of an unreleased machine.
- Work with firmware developers to create a functional test fixture for custom PCBs.
- Planned, designed, and managed project boards and tickets.

Nov 2023 - Jan 2022

PolySign - Remote

Collaborated with many teams across multiple products and technologies to build out features and products for a Digital Asset Custodian in the quickly evolving Cryptocurrency market.

Senior Software Engineer: Jan 2023 - Nov 2023

- Contributed to Escrow feature of Python microservice backend to meet new customer requirements:
  - Redesigned feature data model and control flow to increase robustness.
  - Designed a new data flow to allow for more flexibility in the feature.
- Implemented an end-to-end POC for an unreleased feature across multiple projects.
- Worked on legacy C/Rust codebase to support features in other products.
- Performed monthly Dev-on-Call rotations debugging live issues across multiple environments including: dev, testing, pre-prod, and prod.
- Planned, hosted, and participated in a company wide Hackathon.
- Organized and hosted a weekly engineering reading club.

Software Engineer: Jan 2022 - Dec 2022

- Helped stand up a green field project in Rust aimed at performing fast, distributed multiparty compute signing:
  - Designed fully asynchronous architecture for distributed message signing increasing efficiency and robustness.
  - Overhauled network stack to use Tokio's Tonic gRPC over VirtioVsock Sockets increasing dev velocity and code cleanliness.
  - Redesigned CI/CD Pipeline for multi-repo project to minimize redundancy in builds, regression testing, and integration testing.
  - Integrated with main product as a POC.

Aug 2021 - May 2021

Garmin International - Olathe, KS

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.

Nov 2021 - Jan 2019 | **Siemens Molecular Imaging** - Knoxville, TN
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.
  - Work with a team of engineers using GitLab to write various driver code for a custom Linux image.
  - Developed Firmware, Embedded Software, and Application Software for a unit test fixture that is used during production of PET electronics.
  - Collaborated with a fellow intern to build a GUI Application that monitored and report the status of and entire system including all sub-assemblies.
- Assist engineers with general tasks (e.g. wiring, testing, Python scripts, documentation).

Personal Projects

Jan 2021 | **Light Sign with Web Server Control** - Personal Project
Controlled an LED Array to display text specified on a web page. Custom web server written in Rust hosted control page and sent data over UART. Arduino received UART data and displayed data on LED Array.

Apr 2019 | **Password Manager Browser Extension** - University of Tennessee
Data Structures and Algorithms Final Project
Collaborated with a group of peers to create a functional Chrome extension that manages a user's passwords for multiple sites.

Apr 2019 | **Render Component for Firmware Based Pong** - University of Tennessee
Digital Systems Design Final Project
Reimplemented the retro game Pong on an FPGA using VHDL. Component was implemented to read the game state and render all game objects and scores.

Interests and Hobbies

- Custom Mechanical Keyboards, Basic Electrical Projects, Competitive Programming
- Chess, Go, Reading, Cooking
- Rock Climbing, Cycling, Specialty Coffee