Dylan R. Gaub

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Relevant Qualifications

- *Programming Experience:* Verilog, C, C++, Assembly language (MIPS), MATLAB, Java, and Python
- Digital Circuit logic design and implementation using Teras FPGA
- Experience with Digital and Analog Circuit Design (Using a SPICE called Cadence) (Proficient at Soldering)
- Proficient at PCB design; software includes KiCad and Mentor Graphics Xpedition with component management
- Familiar with Linux and Microsoft operating systems with knowledge on Batch and Shell Command Lines
- Strong problem-solving skills with ability to identify and implement solutions to complex problems
- Excellent time management skills developed through completing class assignments and meeting deadlines
- Great background with Microsoft Office programs, including Excel, PowerPoint, and Word
- Ambitious desire to work in aerospace, effective teamworking, interpersonal, and communication skills

Education

Bachelor of Science in Computer Engineering | Minor in Computer Science   Graduation: May 2022
Colorado State University, Fort Collins, CO   **GPA: 3.368**
Senior Design Project | **Aerospace Actuation Systems**   August 2021 – May 2022
- Collaborating with: Woodward, Inc., Electrical & Computer Engineering, Systems Engineering
- Will be designing a real-time controller hardware-in-the-loop platform for the emulation of aerospace actuation systems, evaluating control algorithms running on microprocessor hardware with a modeled system running on a real-time processor
- Validating the operation of the Controller Hardware in the Loop Interaction platform connecting microcontroller/Opal-RT systems and operating in closed-loop with several aerospace actuation scenarios

Relevant Work Experience

Continuous Integration on GitLab Intern | Seagate Technology, Longmont, CO   August 2021 – December 2021
- Enabled automated and triggered tests to run software validation against different hard drives
- Implemented different operating system platforms using Docker for OS-Level Virtualization

Electrical and Hardware Design Intern | Seagate Technology, Longmont, CO   May 2021 – August 2021
- Rearranged components in KiCad on schematics PC Power Disc Drive board for better ease of access on the PCB
- Designed a layout for the analysis and manufacture of the miniD5 PCB, recreating the old micro-USB to USB-C
- Required close attention to detail when analyzing appropriate data sheets for STM products and other components

Server Automation Intern | Seagate Technology, Longmont, CO   May 2020 – August 2020
- Configured and programmed open-source tool Jenkins for server automation for code development in GitLab
- Managed nightly builds for multiple projects made by the same team but had different requirements that tracked changes in code over time and figure out where bugs came from and overcame challenges with network security
- Decreased a whole day of engineering hours to do an automated server build in 10 minutes, this data would then be stored and reported back to team to help solve customer issues related to the tools being built, all documented

Relevant Course Work Projects

Network Protocol Analysis   Spring 2021
- Used Wireshark software to analyze and communicate protocols and packet roundtrip timings on local networks

Created a Digital Pulse Clock and Pyramid Counter   Fall 2020
- Setup pins from FPGA board and Verilog code to display LED during each corresponding high clock signal

Designed Real Calculator using ARM Microprocessor   Fall 2019
- Programmed a TIVA Launchpad and a solderless breadboard, created a 3 7-segment display calculator
- Configured GPIO pins and system control clocks to run gate control and direction registers

Engineered a Nano processor using TerasIC DE0-CV Board   Spring 2019
- Implemented ROMs, 3 8-bit registers, and TSBAs controlling mathematical operations storing and transferring

Leadership | Involvement | Personal Interests

Colorado State University, CO
- Founding President for the CSU Drone Club   Fall 2019 – Spring 2021
  - Conducted and organized flight days, managed the club roster and finances, publicly spoke at meetings
- Internal Communications Officer for SEDS at CSU   Spring 2021
  - (Students for the Exploration and Development of Space) Created meeting info flyers and announcements
- Building and flying Drones and RC Planes   - Playing basketball and mountain biking
- Greatly enjoy fishing and boating   - Editing and producing photography from drone
- Passion for anything computer and space related such as interests in space, satellites, and telescopes