

Brian Hill

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EDUCATION

George Mason University

Computer Engineering, BS

Fairfax, VA

Expected May 2025

- Notable Courses: Circuit Analysis I/II, Data Structures and Embedded Systems Programming, Continuous-Time Signals and Systems, Digital System Design, Operating Systems, Computer Organization, Embedded Systems, Computer Architecture, Linear Electronics, FPGA Design in VHDL, Microcontrollers

WORK EXPERIENCE

Software Developer

CACI International Inc.

Reston, VA

May 2023 – Present

- Modified and developed SQL scripts for conversion between government financial systems.
- Worked on Python-Selenium-based automated testing tool for Momentum based software.
- Utilized government-based Agile approach to efficiently iterate on given requirements.
- Received public trust clearance from VA.

Sales Associate and Print Specialist

The UPS Store

Manassas, VA

November 2020 – Present

- Managed Enterprise IT network and point of sales systems.
- Supervised high volume print jobs and designed methods to efficiently manage multiple enterprise grade printers.
- Worked in national and international logistics for major retail package services.
- Designed and printed customers personalized business advertisements.

PROJECTS

Keyboard Design

brianchill.us/#/Keyboard

- Designed schematic, PCB, and external housing for external manufacturing.
- Added functionality to existing firmware and documented changes/code on Github.
- Wrote bill of materials and chose cost effective components for design which were implemented into final product.

Drawing Robot

brianchill.us/#/PiDraw

- Developed program for decoding location instructions and drawing on custom designed hardware.
- Used OpenCV to process images and generate location instructions from input images.

Hardware-based Line Following Robot

brianchill.us/#/LineFollower

- Designed Opamp based platform to drive four motors - Controlled by photoresistor-LED, TX-RX design.
- Integrated low-budget off the shelf components into design to satisfy budget requirements.

Microcontroller Powered Video on OLED Screens

brianchill.us/#/Oled

- Developed software interface to transmit video over serial to off the shelf microcontrollers.
- Used OpenCV to process video and compressed data for transmission and low-level playback.

TECHNICAL SKILLS

Languages: Python, C/C++, Java, PL/SQL, MATLAB, VHDL, JS/Web, Bash

Software/Packages: MS Office, Adobe CC, Autodesk Inventor, Xilinx Vivado/Vitis, KiCAD, PSpice, Docker, Git, Jenkins, SQL Developer, Nginx/Apache, Node - ReactJS, OpenCV, Linux, Proxmox

Hardware Competencies: FPGAs, Microcontrollers, Elec. Testing Insts., Networking Devices

AWARDS & CERTIFICATIONS

AWS Cloud Practitioner Accreditation | June 2023

GMU Tech Talent Awards | Multiple Years