Ian P Boraks

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Education

Georgia Institute of Technology | Atlanta, GA

Bachelor of Science in Computer Engineering, GPA 3.5

August 2022 – Present Expected Graduation, May 2025

Colorado School of Mines | Boulder, CO

Non-Degree Program Undergrad with 15 Credit Hours, GPA 3.80

August 2020 – May 2022

Skills

Programming: Java, Python, C#, JavaScript, Dart, Flutter, HTML, CSS/SASS/SCSS, Assembly (MIPS), VHDL

Platforms: Linux (Ubuntu, Debian, Arch), Windows (Consumer, Server), MacOS

Software: SolidWorks (CSWE-MD), VSCode, Microsoft Suite, Git, Unity, Affinity Suite, KiCad, Eagle PCB, Altium, Quartus

Communication: Design proposals, technical reports, documentation, presentations (large and small audiences)

Languages: English (native), Spanish (beginner)

Coursework: Digital System Design, Digital Design Lab (FPGA/VHDL), Programming HW/SW Systems (MIPS)

Experience

Lockheed Martin (LM) | Littleton, CO VR/AR Software Development Intern

March - August 2021

Lockheed Martin is a global security and aerospace company that is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products, and services.

• Developed a multi-user AR-based application to view 3D models on a 1:1 basis, providing high-level descriptions of model components. The project was showcased to multiple high-level military and industry personal including the Executive Vice President of Lockheed Martin Space. C#, Swift, Objective-C, and Unity were utilized for the project.

The HIVE (Interdisciplinary Design Commons) | Atlanta, GA Peer Instructor (PI)

Jan 2023 – Present

Peer Instructors (PIs) are Georgia Tech student volunteers dedicated to staffing the HIVE. PIs are trained to operate the HIVE's machines and are dedicated to helping other students out!

• Trained other students on how to properly use shop equipment including 3D printers, electronic testing equipment, laser cutters, machine shop tools, paint booth, PCB fabrication, and plasma cutters.

The 3D Printing Store (3DPS) | Centennial, CO Student Intern

July 2019 - October 2020

3DPS utilizes cutting edge 3D printing technology to create parts with desirable material properties.

• Used SolidWorks to design parts for both in-house and customer projects. Utilized SolidWorks Drawing Tools to deliver professional sketches to clients for review.

Certifications

SolidWorks: Holder of a Certified SolidWorks Expert (CSWE-MD) certification as well as a CSWPA-SU/SM/DT/WD and the CSWA Advanced Additive Manufacturing certification.

TestOut: Passed exams for PC Pro Certification (CompTIA A+ cert.) as well as Network Pro Certification (CompTIA Network+ cert.).

Awards / Projects

MIT iQuHACK

Fall 2021

iQuHACK (interdisciplinary Quantum HACKathon): MIT's annual quantum hackathon

The aim of iQuHACK is to bring students from a diverse set of backgrounds to explore applications of near-term quantum devices.

• Finished 1st for the gate-based division of MIT's Quantum Hackathon, successfully guided the team to create a clear and concise output for the program as well as coordinated GitHub history corrections and code efficiency efforts.

NeoPixel Light Painter

Fall 2022 - Spring 2023

Personal Development Project

- Developed and troubleshooted a custom printed circuit board assembly (PCBA) which used 1206 and 5050 SMD components.
- Programmed a SAMD21G18 microcontroller in the form of a Seeduino XIAO with C/C++ to be used as a light painting paint brush for long exposure photography.

Activities

RotorJackets | Atlanta, GA

August 2022 - Present

Junior Racer & FPV Drone Builder

- Tested and built First Person View (FPV) race drones for racing in the Colligate Drone Racing Association (CDRA) championship.
- Troubleshooted ESCs, Flight Controllers (FC), and analog video systems.
- Helped organize and run the 2023 CDRA championship hosted by Georgia Institute of Technology.

GT Off-Road | Atlanta, GA

August 2022 - Present

Data Acquisition and Electrical Sub-team Member

- Implemented telemetry tools into Off-Road's All-Terrain Vehicle as well as worked to help improve radio communications.
- Programmed Cortex-M7 arm processors in the form of Teensy Arduinos.