

Josiah Buxton

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EDUCATION

University of Colorado Boulder, Boulder, Colorado, USA

Aug 2017 – May 2019

- Masters of Science (M.S.) in Computer Science with a Concentration in Artificial Intelligence
 - Cumulative GPA: 3.77 / 4.00
 - Floyd Botway Fellowship for Outstanding Master's Student (May 2019)
 - Outstanding Teaching Award (May 2019)

Elizabethtown College, Elizabethtown, Pennsylvania, USA

Aug 2011 – May 2015

- Bachelor of Science (B.S.) in Computer Engineering
 - Cumulative GPA: 3.85 / 4.00
 - Major GPA: 3.88 / 4.00
 - Magna Cum Laude
 - Engineering Honors

WORK EXPERIENCE

Software Engineer, The Aerospace Corporation, Chantilly, VA

Sep 2019 – Present

- Technical lead on developing a new modeling capability in the missile defense domain
 - Collaborated closely with the customer to define requirements and communicate progress
 - Leveraged plugin interface of an existing framework to integrate custom models
 - Designed UML diagrams to communicate the software architecture
 - Organized regular team meetings to address software and interface problems
 - Mentored new subject matter experts on the team and provided guidance on tasking
- Lead developer for modernizing an existing space asset scheduling tool
- Supported analysts by developing new features and timely bug fixes in existing tools
- Formulated best software development practices at the corporation
 - Drafted environment setup tutorials and distributed to other departments
 - Defined release procedures for software capabilities in high performance computing environments
- System administrator of the continuous integration pipeline for all software in the Performance Modeling and Analysis Department
- Maintained active TS/SCI security clearance

Controls/Systems Engineer, Kellogg's Corporation, Lancaster, PA

May 2014 – Jul 2017

- Debugged and applied solutions to malfunctioning equipment on the packing lines of a cereal plant
- Engineered solutions to upgrade equipment from a controls standpoint
- Performed Packing Maintenance Manager role in a union environment on weekends
 - Managed electricians and mechanics
 - Performed emergency repair and planned work
 - Sourced parts
- Led a project to acquire data out of scale equipment
 - Designed a private Modbus TCP/IP network using Cat 5E cabling and Allen Bradley Stratix 5700 switches
 - Installed and configured a Prosoft Modbus TCP/IP module in an existing ControlLogix rack
 - Programmed the ControlLogix PLC to convert the extracted data into tags
 - Created tags in the PI Data Acquisition Server to capture the data and visualize it in a variety of ways

	Instructor (CSCI 3104: Algorithms) , University of Colorado Boulder Jun 2018, Jun 2019 <ul style="list-style-type: none"> ▪ Lectured two sections of 50 students 5 days a week (1.25 hour lecture) ▪ Generated weekly problem sets and solutions for the problem sets ▪ Developed and proctored exams ▪ Held office hours to answer students' questions ▪ Assisted students in rectifying conflicts/problems that arose throughout the semester ▪ Managed a team of teaching assistants, course assistants, and graders
	Teaching Assistant , CS Department, University of Colorado Boulder Jan 2018 – May 2019 <ul style="list-style-type: none"> ▪ Chosen from a pool of 150 Masters students to assist a professor with teaching undergraduate courses <ul style="list-style-type: none"> • Data Structures (Spring 2018) • Algorithms (Fall 2018, Spring 2019) ▪ Developed and distributed problem sets and solutions for the students throughout the semester <ul style="list-style-type: none"> • Led the integration of GradeScope (an auto-grading tool) into existing problem set grading processes improving the efficiency of grading up to 70% ▪ Held office hours every week for students with questions/issues pertaining to the course ▪ Lead recitation sessions for the students
	Student Grader , CS Department, University of Colorado Boulder Aug 2017 – Dec 2017 <ul style="list-style-type: none"> ▪ Graded course work throughout the semester for the class "Network Systems" ▪ Assisted any students who had issues with the assignments
	Student Helpdesk Assistant , IT Department, Elizabethtown College Dec 2011 – May 2015 <ul style="list-style-type: none"> ▪ Assisted students, faculty, and staff with technology issues on campus ▪ Monitored servers, routers, and other hardware on the school network ▪ Diagnosed and rectified network problems
RESEARCH EXPERIENCE	Scholarship, Creative Arts, and Research Program (SCARP) , Elizabethtown College <ul style="list-style-type: none"> ▪ Undergraduate Research Student, Engineering Department May 2013 – Aug 2013 <ul style="list-style-type: none"> • Project: Develop and optimize the E-MAT program to assess fine and gross motor control function of patients with Parkinson's Disease and other debilitating conditions • Supervisors: Professor Dr. Kurt DeGoede • Research areas: GUI development, statistical/data analysis, optimization algorithms
COMPUTER LANGUAGES AND SKILLS	<ul style="list-style-type: none"> ▪ Proficient in Python, Java, C#, C, C++, bash, Visual Basic, \TeX, \LaTeX, SQL, APIs, JavaScript, TypeScript, Fortran, CMake, CSS, SCSS, HTML, and Matlab languages ▪ Experienced in React, React-Native, Node.js, Django, Redux, Virgil, Plaid, Boost, Express, OpenComponents, OpenGL, WebGL, Webpack, Eigen, and MPI frameworks/libraries ▪ Leveraged Gitlab, Jenkins, NGINX, and Valgrind tools ▪ UML diagrams ▪ Google Cloud, AWS, and Microsoft Azure ▪ Experienced in Google Firestore/Realtime Database, AWS RDS, MySQL, PostgreSQL, Access, and Excel database environments
INTERESTS AND ACTIVITIES	<ul style="list-style-type: none"> ▪ Entrepreneurship ▪ Studied abroad in New Zealand Feb 2013 – Jul 2013 ▪ Vocalign A Capella Group Aug 2013 – May 2015 ▪ Elizabethtown Varsity Soccer Aug 2012 – May 2013 ▪ Guitar, video games, singing, health, and fitness ▪ Automation

[Engineering Resume compiled on 2021-09-17]