CARTER MOODY

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EDUCATION

California Polytechnic State University
Bachelor of Science: **Computer Science**

San Luis Obispo, CA
Graduation: 04/2021

TECHNICAL SKILLS

Languages (Greatest to Least Proficiency): C++, Python, CMake, C#, Java, C, SQL, Racket, R, VBScript, Assembly, HTML
Project Based Work: Game Design (Unity), Graphical User Interface Design and Implementation, Arduino, Rpi, Interpreter
Other skills: Git, ADS, Gitlab, Agile, Visual Studio Code, Visual Studio, Vitis/Vivado, WindRiver Workbench, VxWorks
AdobeXD, Arduino/RaspberryPi, Speech, Writing, Windows, Linux

WORK EXPERIENCE

Embedded Software Engineer II – *Raytheon Missiles and Defense*

04/2021 – Present
Tucson, AZ

- Obtained secret clearance and developed new missile technologies – **Git, C++, C, CMake, VS, Vitis, ADS**
- Learned and practiced real-time software development (Agile), integration, testing, and validation activities.
- Adapted and refined current solutions to new hardware and facilitated inter-team collaboration to drive progress
- Employed standard DevOps practices with focus on test driven development and creation of pipeline stages for validation
- Demonstrated problem-solving and communication skills and ability to produce technical documentation
- Applied willingness to learn to many different project opportunities as they became available to support other efforts

IT Systems Technician – *United Staffing Associates*

06/2017 – 04/2020
San Luis Obispo, CA

- Developed and maintained company Intranet on VMWare in 18 offices nationwide – **HTML, JavaScript**
- Designed and deployed Spiceworks Ticketing System as improvement over existing system
- Administrated user software setup: virus protection, applications, CRM/ERP programs, outlook, VPN
- Handled user hardware setup: computers, laptops, peripherals, phone systems, network, printers
- Demonstrated extreme attention to detail when serving over 200 customers daily for 5 days/week

Technical Support Analyst – *CygNet Software*

06/2019 – 12/2019
San Luis Obispo, CA

- Provided scripting assistance to SCADA operators nationwide – **VB Script, SQL**
- Collaborated with hardware/software engineers in the design, development, and integration of system software
- Offered exemplary same day assistance with maintaining and configuring SCADA software
- Created published content detailing specific internal and external processes as easily digestible guides

COMPUTER SCIENCE PROJECTS

Live Interactive Bird Feeder – *At Home Project*

09/2019 – Present
San Luis Obispo, CA

- Established wireless communication between Arduino, RaspberryPi via RF module – **C++, Python**
- Employed HTTP request polling via public API's to digest real-time blockchain updates – **Python**
- Educated community on how to reverse engineer these live interactive systems
- Encouraged interaction with our world's natural beauty and wildlife on 24/7 stream youtube.com/PatagonianDuck

Real Time Strategy Game – *At Home Project*

05/2020 – Present
San Luis Obispo, CA

- Solely developed game using Unity IDE with thousands of lines (and counting) of **C#** code
- Practiced Object Oriented implementation including Inheritance, Interfaces, and Abstract Classes
- Learned from scratch how to interact with and best use the Unity IDE for fast, effective development

Interpreter – *California Polytechnic State University*

01/2020 – 04/2020
San Luis Obispo, CA

- Implemented Turing-complete Interpreter in functional programming language – **Racket**
- Utilized complex language syntax and semantics to allow for recursion and OO style programming
- Enhanced operation by creating Type-Checker, Lambda Functions, Class System, and Mutable Arrays

Group Payment Application – *California Polytechnic State University*

04/2019 – 06/2019
San Luis Obispo, CA

- Successfully led team of four CS students as Scrum Master through three Agile Sprints – **Java**
- Followed standard design procedure to draft UML diagrams and iterate on prototypes
- Drafted multiple technical documents detailing Software Architecture and Framework plans
- Utilized industry tools and modern software design methodologies to deliver working product – **Trello, Git, Jenkins, Travis**

Arduino/RaspberryPi SLO Hackathon Project – *California Polytechnic State University*

2/2019 – 2/2019
San Luis Obispo, CA

- Conducted company research to compile real-world data of problems facing industry
- Presented working prototype and production plan to event judges; Nominated for Most Practical Entry
- Designed, ordered and assembled working prototype to invent time-based access receipt printing – **C++, Python**
- Acquired firsthand experience in the emerging world of the Internet of Things