

# 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
  - Obtained SAFe Certifications in both Product Owner and Scrum Master. Served as Scrum Master since 04/2023
  - Delivered working product to customer and supported ongoing systems integration and test activities
  - Balanced needs of multiple interested stakeholders and developed requirements-driven embedded solution
- 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

## PASSION PROJECTS AND RELATED EXPERIENCE

- Live Interactive Bird Feeder – This project is live! Check it out at [youtube.com/PatagonianDuck](https://youtube.com/PatagonianDuck)** 09/2019 – Present  
San Luis Obispo, CA
- Established wireless communication between Arduino, RaspberryPi via RF module – **C++, Python**
  - Employed websockets via public API's to digest real-time cryptocurrency blockchain updates – **Python**
  - Educated community by documenting detailed process and steps to create their own solution
  - Automated authentication and use of Google API to digest and reply to updates in Youtube live chat
  - Developed multi-threaded solution to subscribe and reply in real time to two completely different update sources
- 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** 02/2019 – 02/2019  
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