

Matthew R Conrad

Torrance, CA | 440-799-1778 | matthew.r.conrad1@gmail.com

<https://conradmr94.github.io/>

Summary of Skills

- **Technical Expertise:** Proficient in **C**, **C++**, **Python**, Django, Shell/PowerShell scripting, and machine learning frameworks.
- **Networking/Security:** Skilled in routing/switching, information, physical, and cyber security compliance and operations.
- **System Architecture:** Expertise in designing, implementing, and securing complex, multi-platform systems.
- **Research/Analysis:** Published machine learning researcher with algorithm and statistical experience.

Experience

Principal Computer Systems Architect **Northrop Grumman Corporation** Los Angeles, CA **7/2024 – Present**

- Completed upgrades **100+** Cisco enterprise switches and routers achieving **<1ms** downtime.
- Managed data center infrastructure using **multicast**, **vPC**, **HSRP**, and **Layer 3** switching and routing.
- Configured and deployed Voice-over-Internet Protocol (VoIP) servers and **120+** client devices to enable communications between multiple physical locations.
- Determined systems specifications, input/output processes, and working parameters for hardware and software systems.
- Implemented policies and procedures for securing software and hardware systems.
- Identified, analyzed, and resolved program support deficiencies by developing and recommending corrective actions.
- Researched and implemented cybersecurity hardening techniques and policies for Linux and Windows devices.
- Installed, configured, and deployed Red Hat Enterprise Linux servers.

Research Assistant **University of Michigan** Ann Arbor, MI **10/2021 - Present**

- Principal investigator of example-based machine learning explanations in the UM Computational HCI Laboratory.
- Developed question-generation algorithms to provide explanations machine learning models using Python.
- Second author on *Interpretability Gone Bad: The Role of Bounded Rationality in How Practitioners Understand Machine Learning* (<https://doi.org/10.1145/3637354>)
- Conducted interviews regarding behavioral economic influence on the interpretation of machine learning models.
- Developed Qualtrics surveys and implemented a variety of survey flows and adaptive logic.
- Conducted analysis and testing of datasets used in machine learning interpretability research using Generative Additive Models (GAMs) and Shapley Additive Explanations (SHAP).
- Gained knowledge and experience in essential research processes including study design, survey development, interviewing, Institutional Review Board approval, manuscript writing, and publication.

Computer Consultant **University of Michigan** Ann Arbor, MI **09/2021 - 08/2022**

- Provided on-site technical support for PC, Mac, and mobile device users.
- Ensured compliance with existing university regulations regarding computer and network security.
- Maintained up-to-date inventories of university assets.
- Conducted employee on-boarding training for 30 faculty and staff.

Information Technology Analyst **Seifert Technologies Inc.** Massillon, OH **02/2021 - 06/2021**

- Provided on-site and remote technical support for Microsoft Office, Power BI, and Global Shop Solutions.
- Developed Microsoft Power BI analytical solutions with DAX for the tracking inventory, shipping, billing, and time data.
- Performed server and data backup maintenance and verification.

Matthew R Conrad

Torrance, CA | 440-799-1778 | matthew.r.conrad1@gmail.com

- Prepared and issued quotes, purchase orders, sales orders, and invoices using QuickBooks.

Active-Duty Marine

United States Marine Corps

Various Locations **08/2012 - 01/2021**

- **Counterintelligence Agent/Assistant Operations Chief/Team Chief (2016-2021)**
 - Planned, coordinated, and executed the first Marine Corps **supply chain risk assessment** for the F-35 Lightning II.
 - Provided counterintelligence support to Marine Aircraft Group 12, Marine Corps Air Station, Iwakuni, Japan.
 - Conducted counterintelligence and human intelligence operations throughout the Indo-Pacific Theater.
 - Conducted counterintelligence surveys and inspections of III Marine Expeditionary Force assets in Okinawa, Japan.
 - Provided **46** security and counterintelligence training presentations for approximately **750** Marines and sailors in Iwakuni, Japan.
- **Cyber Network Operator (2012-2016)**
 - Implemented network architectures for a total of **5** remote operations centers in North Carolina, Ghana, and Gabon.
 - Administered the Secure Internet Protocol Routing (SIPR) Network and processed trouble calls and tickets for more than **1,500** users.

Education

Master of Science in Computer Science
(Machine Learning)

Georgia Institute of
Technology

Atlanta, GA

In Progress

Bachelor of Science in Computer
Science
(3.6 GPA)

University of Michigan

Ann Arbor, MI **08/2021 – 05/2024**

Certifications

- CompTIA Security+ (exp. 9/2025)
- CompTIA A+ (exp. 9/2025)

Skills

- C | C++ | Python | Django | Object Oriented Programming | Algorithm Design | Computer Vision | Statistical Methods
- VoIP Management | Routing | Switching | Cyber Security | Linux | Red Hat Enterprise Linux | Server Management
- Leadership | Project Management | Team Building | Presentation | Communication | Problem Solving
- Counterintelligence/Human Intelligence Operations | Intelligence Operations Planning | Intelligence Reporting

Other

- **Security Clearance:** TS/SCI with CI-scope polygraph
- **Awards:** Navy and Marine Corps Commendation Medal (2020), Navy and Marine Corps Achievement Medal (2016, 2018)