Northwestern University | Chicago, Illinois | [Thoene.Jack@gmail.com](mailto:Thoene.Jack@gmail.com) | [Jack.Thoene@usmc.mil](mailto:Jack.Thoene@usmc.mil) | [www.linkedin.com/in/jack-thoene](http://www.linkedin.com/in/jack-thoene)

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| **Professional Profile** | | | |
| * US Marine Corps communications officer with 5 years of leadership experience. * Effective problem solver addressing the full spectrum of organizational obstacles. * Hands-on experience in low- and high-level code, hardware, network design and implementation, information management, and staff operations. * Decisive leadership style that quickly moves from problem identification, analysis, bias for action, and delivery of results. * Specializations include network and server architecture, IT troubleshooting, micro-controller software and hardware design, and autonomous vehicles. | | | |
| **Work Experience** | | | |
| **Deputy Chief Information Officer Marine Innovation Unit (MIU)** | | | **Apr 2023 – Present** |
| * Key leader that aligns MIU IT strategy with overall actionable organizational goals and objectives. * Manage the unit’s IT department, to include all asset management. * Assist the CIO in managing MIU Line of Operation Zero: Unit of the future; help in wielding influence across the   USMC community to adapt and become a faster and more efficient warfighting organization.   * Assist the CIO in the oversight of development and implementation of technology solutions, including but not limited to the Marine Corps Software Factory. | | | |
| **Individual Consultant and Contributor Marine Innovation Unit (MIU)** | | | **Mar 2023 – Present** |
| * Serve as the mediator between the Marine Corps community and civilian private contractor community to bring innovative capabilities to the Marine Corps operational units. * Unmanned and Autonomous Logistics: Wrote key USMC white paper regarding the feasibility of commercially available unmanned, uncrewed, or autonomous logistics vessels in a near peer, contested, and anti-access area denial environment. * Work with the Tactical Assault Kit (TAK Community of Practice) to implement AI/ML computing at the edge to the individual warfighter equipped with Android and iOS devices | | | |
| **Cyber Security Engineer Red Berry Innovations** | | | **Jan – April 2023** |
| * Produce *“Hacking Networked Vehicles and Industrial Control Systems Using Python and Raspberry PI”* course for use in Raytheon subcontract to tier-one forces of the US Army. * Troubleshoot and maintain the efficient architecture of on-premises server architecture and security and coordinate migration to the cloud with ISP and CSP. * Completed re-design of asset management into one digital location for all 3 sister companies. * Developed a 3-server, complete network emulator for penetration testing (sandbox environment). | | | |
| **Commanding Officer Service Company, Combat Logistics Regiment 17** | | | **Apr – Dec 2022** |
| * Leader of 135-person organization providing procurement, contracting, retail, postal, and financial services to all individuals and units for the Marine Corps West Coast area (~60,000 total personnel). * Develop, manage, execute, and supervise mission oriented, calendar year, and fiscal year training objectives. * Train and mentor 22 Regimental junior officers/leaders to foster a productive and collaborative working environment. * Receive and onboard all newly arriving team mates to the unit regardless of occupational specialty. (~10 per month). | | | |
| **Executive Officer Communications Company, Combat Logistics Regiment 17** | | | **Mar 2021 – Mar 2022** |
| * Chief of Staff providing telecommunications services to 22,000 personnel in the 1st Marine Logistics Group (MLG). * Principal advisor for the administrative and personnel readiness of the 250-person company, ensuring good order, discipline, high state of organization, and adherence to all policies, orders, and directives by all 250 Marines in the company. * Train and mentor 5 junior officers/leaders in the conduct of leading their organizations, impacting 250 total personnel. * Primary supervisor for all communications security requirements (ex: cryptographic material accountability and electronic key management infrastructure inspections). | | | |
| **Communications Officer Combat Logistics Regiment 17** | | | **Dec 2019 – Mar 2021** |
| * Principal advisor to the Commanding Officer and Regimental staff on all matters pertaining to communications and IT systems status, readiness, and employment for both garrison and tactical environments. | | | |
| **Intern Experiential Leadership Department, US Naval Academy** | | | **May – Sep 2018** |
| * Manage departmental social media presence. Participate in and collect narrative accounts of participant lessons learned in programs (Denali expedition, Outward Bound, Gettysburg, etc.) for presentation to USNA donors and partners. | | | |
| **Education** | | | |
| **M.S. Electrical Engineering Northwestern University** | | **Sept 2023 – May 2025** | |
| * Full spectrum engineering curriculum ranging from wearable edge computing devices, FPGA and PCB design and manufacturing, and developing deep learning models from scratch. | | | |
| **B.S. Systems Engineering U.S. Naval Academy** | | **2018** | |
| * *“Weapons, Robotics, and Control Engineering”.* Full spectrum engineering curriculum ranging from robotics, autonomous vehicles, and sensors to thermo-fluid sciences, statics, and dynamics. Included courses in computer vision, fabrication, wiring of electronics, and basic programming. | | | |
| **Skills** | | | |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Cyber Security** | **AI/ML/ Deep Learning** | **Programming** | **Prototyping** | **Leadership** | | Junior Pen Testing | Numerical Optimization | Python | HTML | Team Building | | Nessus Scanning | Linear/ Non-Linerar Regression | C, C++, C# | CSS | Information Management | | Nmap Scanning | Feature Classification |  | 3D printing | Microsoft Suite | | Ethical Hacking | Feature Learning | Pandas | MATLAB | Google Suite | | Network Security | Feed-Forward Neural Networks | NumPy | Raspberry Pi | SharePoint | | V-Spy/ Wireshark | Tree Based Learners | Junyper | Arduino | Managing Large Teams | | **Telecommunications** | K-means clustering | VS Code | ARM mbed | Decision Making | | Radio Frequency (RF) | Deep Feedforward Networks | TinyML | Xcelium | Austere Environments | | Network Administration | Convolutional Networks | AWS Lambda/ S3 | Genus |  | | Wave Theory | Recurrent Networks | MySQL | Innovus |  | | Antenna Propagation | Unsupervised learning | PostgreSQL | Virtuoso |  | | Terrestrial Communications | Autoencoders | Ambiq Apollo | Ambiq Apollo |  | | SATCOM | Deep Reinforcement Learning | Verilog/ VHDL | Eagle |  | | Compartmentalized Terrain | Deep Q Learning | Javascript | VLSI |  | | Fiber-Optics |  | Typescript | FPGA |  | | Ubuntu |  | React | Microchip Studio |  | | RHEL |  | Angular | System Verilog |  | | Kali |  | Atomic | UVM |  | | Pi Hole |  | Django | Mixed Signal ASIC |  | | GNU SDR |  | Spring/ Springboot | Analgo ASIC |  | | Digital Signal Processing |  | GraphQL | CAD: Onshape |  | | Computer Vision |  | NoSQL | Autodesk Fusion |  | |  |  | Databricks | Altium |  | |  |  | MongoDB | Ansys |  | |  |  | Jasmine | Energy Harvesting Circuitry |  | |  |  | DevOps | Microchip Studio |  | |  |  | Next.js | Code Composer Studio |  | |  |  | Vue | IAR Workbench |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | | | | |
| **Research, Publications, Papers, and Projects** | | | |
| |  |  | | --- | --- | | **Research:** Wearable High Voltage, Low Power, Battery-less Energy Harvesting Interface Circuit | **Sept 2023 – Present** | | * Sub-department of VAK Lab, led by Professor Nivedita Arora of Northwestern University. Overall project aims to create “sustainable, expressive, easily wearable robotic textiles by using fibrous soft electrohydraulic actuators (FSEA). | | | | | |
| |  |  | | --- | --- | | **Research:** Transmission Driven Electrokinetic Generator | **April 2024 – Present** | | * Placeholder | | | | | |
| |  |  | | --- | --- | | **Project:** Augmented Reconnaissance and Estimate of the Situation (ARES) Decision Aid | **Sept 2023 – Present** | | * In cooperation with Office of Naval Research (ONR), Marine Corps Tactics and Operations Group (MCTOG), USMC Tactical Systems Support Activity (MCTSSA), Marine Innovation Unit (MIU), and USMC Combat Development and Integration (CDI), develop Machine Learning algorithms for the Tactical Assault Kit (TAK) Ecosystem enabling warfighters to make data-driven decisions in real time from the field from their portable computer system or tablet. | | | | | |
| **Certifications** | | | |
| * Security Clearance: Active TS/SCI * CompTIA SECURITY+ * USMC Mountain Communications Course | * USMC Winter Mountain Leader/ Scout Skier * USMC Basic SharePoint Site Manager * USMC Advanced Radio Operator | | |
| **Volunteer** | | | |
| **Do Space Internet Library, Omaha, NE (23 Hours)** | | **Mar – May 2023** | |
| * Serve the city of Omaha troubleshooting personal laptops, desktops, and small board computers. * Taught classes on Windows, 3D modeling and printing classes, and basic programming to students grades 8 and below. | | | |
| **Patrol Base Abbate (100+ Hours)** | | **May 2023 – Present** | |
| * Director of Information Technology for Non-Profit Veteran’s program. Key components include leading a fully asynchronous IT team across 5 states and every time zone. Use of HubSpot and the Google Admin Suite to manage everything from our website, company calendars, donations, and our Customer Relationship Management. | | | |
| **Science Mentorship Institute (100+ Hours)** | | | **March 2024 – Present** | |
| * Placeholder | | | | |

My role in the lab

Hackathon poster

LCA Poster

392 Poster

TEKA Poster

Smartwatch Poster