

# RICHARD OLDHAM

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## SUMMARY

Marine Corps veteran and recent graduate with B.S. in Software Engineering seeking entry level position as a Embedded Software or Machine Learning Engineer in the San Diego area. Currently pursuing M.S. in Information Data Science; gained admission to UC Berkeley. Developed a Deep Learning system in Python using the PyTorch framework that included a Generative Adversarial Network (GAN) and a Convolutional Neural Network (CNN). Completed several embedded systems projects during undergraduate studies. Strong desire to work at the intersection of data science and embedded systems. Flourishes in dynamic and challenging conditions. Outgoing, conscientious, self-motivated, adaptable. A seasoned professional with experience solving complex problems in collaborative environments. Secret clearance.

## CORE COMPETENCIES

- Object Oriented Design.
- Data Structures and Algorithms
- Communication
- Adaptability

## PROFESSIONAL EXPERIENCE

### **INFORMATION AND DATA SCIENCE (MIDS) STUDENT| Expected Graduation: 2025**

- The UC Berkeley MIDS program prepares students for work in data driven fields through the study of Applied Machine Learning, Deep Learning, Data Cleansing, Data Engineering, Data Mining and Exploration, Data Visualization, Information Ethics, Research Design, and Statistical Analysis.

### **SOFTWARE ENGINEER INTERN | GENERAL ATOMICS AERONAUTICAL SYSTEMS(GA-ASI) | February 2022 – May 2023**

- Partnered with a senior Software Developer to create signal processing algorithms
- Wrote MatLab scripts supporting platform sensor systems signal interpretation
- Created presentations to visualize analysis of data related to platform sensor performance

### **SOFTWARE ENGINEERING STUDENT| 2019 – May 2023**

- Completed rigorous studies of fundamental computer science and core software engineering topics. Many individual and group programming projects in C/C++, Java, Python, Prolog, ARM Assembly and F#.

### **EXPLOSIVE ORDNANCE DISPOSAL (EOD)| MARINE CORPS | 2002 - 2019**

- Assisted EOD units in funding, planning and executing training exercises
- Managed EOD support to the Department of State and other government agencies
- Supervised command EOD operational reporting activities

- Provided formal mentorship and professional development to Marines under my charge
- Perform various duties of an EOD technician

### Projects

- Led a GA-ASI sponsored Senior Project to develop a Deep Learning system in Python using the PyTorch framework. The system included a Generative Adversarial Network (GAN) supported Convolutional Neural Network (CNN) used for image classification.
- Contributed to a group Machine Learning project involving image classification using the Scikit Learn and PyTorch frameworks.
- Practiced core Machine Learning concepts during several end-to end projects consisting of regression and classification problems.
- Various course projects on low-level programming of real-time embedded systems using ARM Cortex M.
- Built an Arduino remote vehicle kit and programmed it using C++ to navigate a track while reacting to external stimuli through ultrasonic and infrared sensors.
- Applied machine learning to developing an optimal frequency prediction algorithm for Marine Corps Tactical Systems Support Activity (MCTSSA). Used *Python* to process a sample data set of over 1.5 million lines of Ham radio transmission data.

## EDUCATION

### MASTER OF INFORMATION AND DATA SCIENCE

UNIVERSITY OF CALIFORNIA BERKELEY | GPA: -- | EXPECTED GRADUATION: 2025

### BACHELOR OF SCIENCE IN SOFTWARE ENGINEERING

CALIFORNIA STATE UNIVERSITY SAN MARCOS | GPA: 3.5 | GRADUATED: MAY 2023

### Clearance Level

SECRET

### Technical Skills

- Languages: Python, Java, C/C++, ARM Assembly, F#, Prolog, JavaScript
- Tools: Blue J, Eclipse, Visual Studio, GDB, Arduino Studio, Mbed Studio, WSL, JetBrains, MatLab, GitLab, Jira
- Operating Environments: Windows, Linux/Unix, Mac

### Related Courses

- Data Structures and Algorithms, Computer Organization and Machine Language, Computer Architecture, Programming Languages, Software Engineering, Requirements Engineering, Operating Systems, Embedded Systems, Engineering Ethics  
Software Project Planning & Management, Software Testing & Quality, Machine Learning Systems