# Harley Gribble

## Contact Information

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## Summary

Detail-oriented Computer Science student with over 6 years of experience in the U.S. Navy as an Electronics Technician, specializing in secure communications and IT infrastructure. Currently transitioning into software engineering, with strong skills in **C++, Python**, and object-oriented programming. Seeking an opportunity to apply my software development skills in a team-oriented environment. Passionate about embedded systems, real-time software, and contributing to innovative technology solutions in defense and aerospace.

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## Professional Skills

- **Programming Languages**: Python, C++, Java, PHP, HTML, TensorFlow/Keras (Machine Learning), R (R Studio), SAS
- **Development Tools**: Visual Studio, Git, GitHub, R Studio, Jupyter Notebook, Google Colab
- **Technical Skills**: Object-Oriented Programming, Embedded Systems, Software Development Lifecycle, Electronics Repair, Circuit Card Repair, IT Infrastructure, Soldering, Troubleshooting, Distributed Systems, Network Security, Cloud Technologies
- **DevSecOps Tools**: Familiar with Atlassian, Gitlab, and Jenkins
- **Soft Skills**: Leadership, Communication, Cross-functional Team Collaboration, Problem-Solving, Adaptability, Logistics Management

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## Work Experience

### Electronics Mechanic | Navy Undersea Warfare Command

**Apr 2018 - Mar 2021**
- Performed depot-level electronic repair for all branches of military service.
- Conducted soldering and repair of electronics and microelectronics, from trim pumps to circuit cards.
- Engaged in obsolescence management, repairing components no longer under contract.

### IT Lead Petty Officer | US Navy: Naval Hospital Bremerton

**Apr 2018 - Sep 2018**
- Directed the deployment and integration of MHS GENESIS, the hospital's Cerner-based electronic health record (EHR) system.
- Led cross-functional IT support teams to ensure infrastructure readiness, data migration, and network security compliance.
- Managed system testing protocols, user access controls, and optimized IT configurations to support clinical workflows.
- Provided training and technical support to hospital staff, ensuring uptime and reliability during system transition.

### Electronics Technician (Submarines) | U.S. Navy: USS Miami (SSN 755), USS Buffalo (SSN 715)

**Mar 2012 - Apr 2018**
- Operated, maintained, and repaired satellite communications systems for secure voice and data transmission, including antennas, decouplers, cryptographic devices, routers, and switches.
- Managed and maintained Top Secret IT network infrastructure, including servers, routers, and workstations, ensuring reliable communication channels for mission-critical operations.
- Troubleshot and resolved issues in IT network equipment using Putty scripting, command line tools, and diagnostics.
- Operated and maintained multiple communication circuits, including EHF, SHF, HF, UHF, LF, VLF, and VHF communication links up to Top Secret classification.
- Conducted preventative and corrective maintenance on over 100 pieces of submarine electronics, including RADAR, intelligence equipment, and cryptologic systems.
- Led logistics and inventory management for over $1 million worth of communication and electronic equipment, ensuring all mission-essential components were available and functional.
- Maintained and repaired intelligence systems for Signal Intelligence (SIGINT) and Communication Intelligence (COMINT), contributing to the effective gathering and secure transmission of critical information.

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# Education

## Bachelor of Science in Computer Science (In Progress)

**Southern Methodist University, 2023-2026**
- Completed courses include: Data Structures, Algorithms, Machine Learning, Discrete Computational Structures, Foundations of Modern Computing, Software Engineering, Embedded Systems

## Fiber Optics Installer Certification

**ETA International**, Jan 2017

## NAVSEA Solder Repair/ESD Certification

**Navy Undersea Warfare Command**, 2019

## Submarine Communications Electronics Rating Field

**U.S. Navy, Submarine School Groton, CT**, Apr 2013

## Tactical Computer Network Operator

**U.S. Navy Submarine School Groton, CT**, Oct 2012

## Advanced Technical Training

**U.S. Navy Submarine School Groton, CT**, Aug 2012

## Basic Enlisted Submarine School

**U.S. Navy Submarine School Groton, CT**, Jun 2012

## Additional Military Training

- **Introduction to EKMS (Electronic Key Management System)**, Dec 2012
- **Common Submarine Radio Room Operation**, Feb 2013
- **AN/BPS-15H Operator**, Mar 2013
- **Electronic Sensor Measure Operator**, Mar 2013
- **Fiber Optics Maintenance Technician**, Jan 2017

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# Projects

## Document Search and Indexing System (C++)

- **Tech Stack**: C++

- Developed a document indexing and search system using AVL trees, hash maps, and a custom query processor. Implemented features such as term frequency-inverse document frequency (TF-IDF) ranking, random search results, and index persistence. Achieved high speed and accuracy in indexing and search, with a focus on efficiency and scalability. Conducted thorough performance analysis, including corpus statistics and indexing times.

## Text Classification on TensorFlow AG News Dataset

- **Tech Stack**: Python, TensorFlow

- Conducted text classification on the TensorFlow AG News dataset using sequential network architectures. Evaluated CNNs and Transformers, tuned hyperparameters, and compared model performances using metrics such as recall, precision, F1-score, and accuracy. Concluded that the GloVe-based CNN model performed best overall, with an average recall of 0.9062 and average precision of 0.9091.

## Personal Portfolio Website

- **Tech Stack**: HTML, CSS, JavaScript

- Created a personal website to showcase my projects, including experience and coursework. Used JavaScript for interactive elements. Available here.

## Sentiment Analysis in C++

- **Tech Stack**: C++

- Developed a sentiment analysis program in C++ to classify tweets as positive or negative. Implemented preprocessing techniques like tokenization, lowercasing, removal of special characters, and stemming using Porter2. Achieved an accuracy of 72.4% on the provided training and test data. The program efficiently manages memory, verified using Valgrind, and leverages a custom DSString class for text processing.

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## Certifications and Achievements

- **Navy/Marine Corps Achievement Medal** (2) for outstanding performance during deployment
- **Navy Good Conduct Medal** (2) for consistent exemplary behavior and dedication to duty
- **National Defense Service Medal**
- **Global War on Terrorism Service Medal**
- **Sea Service Deployment Ribbon**
- **Navy Unit Commendation**
- **Expeditionary Medal (Navy/Marine Corps)**
- **Expert Rifle Qualification**
- **Expert Pistol Qualification**

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## Additional Information

- **Security Clearance**: Previous Top Secret/SCI Clearance, eligible for Secret Clearance
- **Languages**: Spanish (conversational)

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