Sean Head

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Sr. Software Engineer

- **15 Years experience** working with distributed, real-time systems for signal processing
- Active **Secret Clearance** (Continuous Evaluation)
- Masters in Computer Science specializing in **Machine Learning**
- Familiar with **Agile** methodologies (esp scrum); **object oriented** design and analysis; projects at many stages of development

Tool Sets

- **C/C++** (10 years professional experience): GCC; GNU-Make; Autotools; GNU DeBugger; Realtime, Multithreaded, and Networked applications (Sockets, RTI-NDDS, Wireshark plugins, WebSockets)
- **Java** (3 years): Netbeans; Eclipse; Swing; JAXB; multi-threaded, network and GUI applications.
- **Linux** (10 years): RedHat, CentOs, Ubuntu/Debian; Bash scripting, Vim
- **Version Control:** SVN, CVS, Git (GitLab), Jenkins
- **Misc:** XML (10Years), Python, JavaScript, HMTL

Professional Experience

2006-Present: Software Engineer @ General Dynamics – Mission Sys

Project Highlights Include:

- **2019: AWACS – OMS Trade study:** Working as lead software engineer; guided and assisted team to build system to connect and interpret network messages between disparate simulators.
- **2017: “Muskrat”:** Lead small team of developers to create CentOs image for Oracle Virtual Box, scripting tools and documentation to aid development of signal processing applications. Implemented collection scheduling algorithms in C++11.
- **2013-2016: Air Missile Defense Radar:** Identified, designed and created essential, significant additions to primary GUI test tool using NetBeans and Java Swing. Created primary DREX (UDP/IP) network capture test tools in C++ to support real-time 10GE data.
- **2012 Affordable Common Radar Architecture Transition:** Parsed, reconstructed and forged NDDS network data in C++ using UDP sockets. Tweaked GPU based DSP algorithms using CUDA.
- **2011 Back End for Sensor Systems:** Model Driven Development: generating and using C++ messages from Rhapsody Models
- **2006-2010:** Various open architecture signal processing systems in C++

Education

M.S. Comp Sci 2019 Georgia Institute of Technology

Specialized in Machine Learning; GPA: 4.0; On-line while full time employed

B.S. Comp Sci 2006 University of the Pacific

GPA: 3.5; Academic Achievement Award for C.S.; TA for Networking and Net Security