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| **PHILLIP HOANG** | Phone: 714-785-1356 |
| | Email: Phillip.Hoang@berkeley.edu |
| Irvine, CA 92602 | Secret Clearance, EVMS Certified, BOE Approver Certified, |
| | PM Level 6 Certification, Licensed Product Owner/Scrum master |
| | 2022 Raytheon High Potential Talent Pool (Top 1%) |

## QUALIFICATIONS

20+ years of experience in Software Engineering, SW Cost Estimation Department Rep, Proposal Management including bidding and oversight of Firm Fixed Price (FFP) programs, BOE developer and approver, SW Tools Lead SME for Agile / Scrum methodologies and DevSecOps pipeline concepts, Agile Lean ATEP Course instructor, Agile EV SME, SW metrics SME, IA and Cyber Security requirements experience, Secure Coding instructor

## LEADERSHIP ROLES

NGO Deputy IPTL/CAM, SSSS Section Manager, CMSP IPTL/CAM, MFSS ATP Section Manager, EOSS Scrum Master, SW Tools Lead, FOSS TIG Chair, SEEL TIG Chair, RAPA President, RMC board and boosters Chair, YESNet council, SWEC New Hire Development team, NAAAP founder and President, ABAOC board member, VACOC board member, IEEE UCR President, ACM UCR Vice-President

## EDUCATION

**MS Software Engineering**, CSUF, GPA 4.0
**MBA**, Pepperdine University, GPA 3.94
**BS** in **Computer Science**, BS in **Electrical Engineering**, minor in **Economics**
University of California at Riverside, December 2001

## PROFESSIONAL EXPERIENCE

**Jul 2020 – Present: Raytheon, Space & Airborne Systems, El Segundo, CA.**
**Job Title: Software Engineering Manager III, Deputy IPTL/CAM, Section Manager**

- NGO (Next Generation Overhead Persistent InfraRed) /TCD (Track Custody Demonstration)
    - 60+ software engineers and 6 software product teams (FSW BSL&DP, FSW SC, GSW, Cyber, Tests, and Infrastructure)
    - Manage $50M software development budget ($488M program) and schedule utilizing Earned Value management (BOEs, LRE/EACs, VARs) with an aggressive schedule and a demanding customer
    - Responsible for data integrity, collection, analysis, and reporting of all Raytheon Corporate and RIS Software metrics
    - Generation of status reports detailing software highlights and key accomplishments
    - Utilized modern technologies, methodologies, processes, and tools such as JIRA, GIT, Jenkins, Docker, GoogleTest, MBSE, Agile EV, Rhapsody autocode, MATLAB autocode, Rational Publishing Engine, Digital Engineering
- Section Manager
    - 30 direct reports
    - Department Cost Estimation Lead
    - Software Proposal Lead for NGO Phase 2 ($39M software, $163M total Awarded)
    - Software Proposal Lead for TCD ($4M software, $29M total Awarded)
    - Hire and train new team members
    - Manage performance discussions, employee performance development and assessment, salary planning and compensation, and human resource issues

**Apr 2019 – Jul 2020: Raytheon, Space & Airborne Systems, El Segundo, CA.**
**Job Title: Principal Software Engineer, CMSP IPTL/CAM, MFSS ATP Section Manager**
- MFSS ATP (Multi-Function System Services Advance Tactical Pods)
  - Integrated product team lead for 20+ software engineers and 5 software product teams (MFSS, EOSS, BIT, DevOps, and Release)
  - Managed $8M software development budget ($130M program) and schedule utilizing Earned Value management (BOEs, LRE/EACs, VARs) with an aggressive schedule and a demanding customer
  - Managed multiple Agile Scrum teams utilizing Scrum at Scale and DevOps

**Aug 2017 – Apr 2019: Raytheon, Space & Airborne Systems, El Segundo, CA.**
**Job Title: Senior Software Engineer II, EOSS Scrum Master**
- EOSS (Electrical Optical System Software)
  - Responsible for a team of 9 software engineers; leading developers in a larger project team; decomposing complex needs to discrete development tasks and distributing tasks among developers leveraging their strengths; refining vague statement of need to develop a solution in collaboration with stakeholders
  - Help the team understand Scrum theory, practice, rules, and values
  - Servant-leader for the team to maximize value
  - Remove impediments to the development team's progress

**Aug 2010 – Aug 2017: Raytheon, Space & Airborne Systems, El Segundo, CA.**
**Job Title: Senior Software Engineer II, SWEC Tools Lead**
- Software Engineering Center (SWEC) Method and Tools team
  - Strategically help implement continuous integration (CI), free and open-source software (FOSS), static analysis, Advance Test, and Agile/Scrum
  - Develop SWEC tools/methodologies strategy roadmaps
  - Provide training on modern software development methodologies and tools
  - Increase Continuous Integration usage from 2% to 67%, FOSS usage from 10% to 52%, Static Analysis usage from 0% to 47%, Advanced Test usage from 5% to 29%, and Agile/Scrum usage from 1% to 26%

**Aug 2006 – Aug 2010: Raytheon, Space & Airborne Systems, El Segundo, CA.**
**Job Title: Senior Software Engineer II, Algorithm Development**
- MONARCH, World's First Polymorphic Computer (LEX/YACC, C++, gdb, insight, automated unit testing)
  - Parallel, multi-processor chip, world's first polymorphic computer
  - Updated the assembler with enhanced features that include compound stream (arrays/structures), iteration (for loops), functions (templates and elements)
- Multi-look ATC/ATR Fusion (MATLAB, C, C++)
  - MATLAB to C conversion of multi-look ATC/ATR fusion algorithms
  - Integrated software into a real-time system for the Raytheon Multi-Test bed (RMT) airplane
- Super-Resolution Vision System, SRVS (Real-time system, MFC, C++, MATLAB, SVN)
  - Responsible for integrating the SRVS image processing algorithms, video frame grabber software, and tracker software
- Video Tracker Internal Research and Development (C, MATLAB, MFC, CVS)
  - Algorithms: image correlation, image shift estimation, and image segmentation
  - Analysis of video tracker performance: SNR, contrast, and accuracy
  - Reviewed super resolution and image stabilization algorithms

- o Algorithms involved: contrast enhancement, shift estimation, noise reduction, interpolation, convolution and deconvolution, Fourier transforms, and histograms
  - o Implemented a Kalman Filter for the image stabilization algorithms

**Aug 2003 – Aug 2006: Raytheon, Space & Airborne Systems, El Segundo, CA.**
**Job Title: Software Engineer II, Software Development**
- ATFLIR, Q2, Q27A, Q29, Quiet Eagle Programs (Real-time system, VxWorks, C, Ada, CM Synergy, Stethoscope)
  - o Design, Code, and Test of the Automatic Video Tracker
  - o Modification and peer review of software requirements specifications (SRS), interface control document (ICD), interface design document (IDD), software test descriptions (STD), and performance verification tests (PVT).
  - o Supported Design, Code, Test, and Sell Off of the Automatic Video Tracker
  - o Worked on maintenance and Software Change Requests (SCR)
  - o Supported Formal Quality Test (FQT) and Sell Off of Q27A software

**January 2002 - June 2002: University of California at Riverside, Riverside, CA**
**Job Title: Teaching Assistant**
- Taught laboratory sections in CS 8: Introduction to Computing, CS 10: C++ Programming, and CS 61: Assembly Language Programming.
- Prepared lab material and graded assignments.

**July 2000 - July 2001: College of Engineering, Center for Environmental Research, Riverside, CA**
**Job Title: Research Assistant**
- Programmed and interfaced peripherals with a Motorola HC11 microcontroller.
- Palm programming for a multi-user car sharing system.

**September 1999 - January 2000: Visualization and Intelligent Systems Laboratory, UCR, Riverside, CA**
**Job Title: Undergraduate Researcher**
- Developed software to track and follow an object in real-time

**Winter 1999, Spring 2000: CS 120B - Digital Systems, UCR, Riverside, CA**
**Job Title: Undergraduate Teaching Assistant**
- Explained digital circuit design to students.
- Debugged and offered suggestions on VHDL coding.
- Projects: ALU design, 4-bit counter, FSM plus datapath design, Microprocessor design

**SKILLS**
- C/C++, Java, Python, Ada, HTML, Assembly, Visual Basic, MATLAB, VHDL, Perl, Shell
- DOS, Mac OS, Palm OS, UNIX/Linux/Solaris, VxWorks, Windows
- Oscilloscopes, Function Generators, Multimeters, Xilinx FPGA boards, Intel 8051, Motorola HC11 microcontrollers, Intel x86 microprocessors, VMETRO PCI Bus Analyzers
- Access, AdaMulti, CM Synergy, CVS, Excel, GIT, JDK, LEX/YACC, MASM, Photoshop, PowerPoint, Protel, PSpice, Stethoscope, Subversion, Tornado, Visio, Visual Studio, WindView
- MFC, Win32, Embedded Ethernet, OpenGL, Real-time systems, RTOS, TCP/IP

**RELAVENT COURSE WORK**

Systems and Software Standards and Requirements, Advanced Software Process, Software Design and Architecture, Modern Software Management, Professional, Ethical and Legal Issues for Software Engineers, Accounting Information and Control Systems, Personal and Leadership Development, Behavior in Organizations, Quantitative Analysis for Business Operations, Prices, Profit, and the Market Economy, Financial Management of the Firm, Marketing Management, Information and Process System, Valuation and Corporate Combination, Integration in Business Operations, Strategic Management, Investments and Portfolio Management, Global Capital Markets, C++ Programming, Algorithms and Data Structures, Theory of Automata and Formal Languages, Assembly Language Programming, Logic Design, Digital Systems, Adv. Digital Systems, Computer Architecture, UNIX System Administration, Computer Security, Computer Networks, Programming Languages, Compilers, Embedded Systems, Operating Systems, Linear Circuit Analysis, Non-linear Circuit Analysis, Signals and Systems, Image Processing, Engineering Electromagnetics, Analog Communication, Digital Communication, Data Acquisition, Instrumentation, and Process Control, Digital Signal Processing, Control Theory, Artificial Intelligence, Formal Methods, Neural Networks, Numerical Analysis

**AWARDS, RECOGNITIONS AND PUBLICATIONS**

2018 EOSTN Symposium presenter, Raytheon Innovation Challenge Finalist (Audience Choice Award Winner 2007 & Finalist 2010), SPIE Journal Publication on Correlation Tracking, EOST Symposium poster presentation on ATR data fusion, ACM Programming Competitions, IEEE Micromouse Competitions