

# Chris Roche

Dallas, Texas

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## SUMMARY

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As a Senior Software Engineer with Raytheon Technologies, I have worked as a Scrum Master, Product Owner, and Software Architect. I excel at taking complex software products from requirements derivation to design, development, integration, and delivery. Extensive experience interacting with customers and other engineering and business disciplines. I am a fast learner with strong analytical and problem solving skills. I have a high work ethic and enjoy being challenged. A lifelong learner passionate about bringing new technologies from design to reality. Certified Scrum Master and former United States Marine with an active security clearance.

## PROFESSIONAL EXPERIENCE

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### Raytheon Technologies

*Senior Software Engineer*

**McKinney, Texas**

*May 2017 – Present*

- Software product technical lead, Scrum Master, Product Owner, Architect
- Oversees software efforts through various product life-cycle phases and milestones
- Regularly assists other engineering disciplines with requirements development, system design, integration, and technical documentation
- Extensive experience in customer facing roles, technical communication, and presentation
- Lead system integrator on an emerging product. Experienced in ground and flight tests
- Strong background in System Architecture, System Integration Test, Root Cause Corrective Action
- Software Cost Estimation and Basis of Estimate for programs and proposals
- Advanced technical education courses in Software Architecture, Principles of Systems Engineering, Machine Learning, and Electro-Optical Infrared systems
- Multiple Achievement Awards for technical leadership and program contributions
- Software Engineer of the Month in Business Unit for technical contributions

### United States Marine Corps

*Intelligence Team Leader*

**Jacksonville, North Carolina**

*February 2007 – February 2012*

- Trained and led a ten-person team in a combat zone
- Intelligence Chief in a combat zone
- Routinely coordinated with and advised military and government agency leaders throughout the world
- Awarded Navy and Marine Corps Achievement Medal for excellence

## RELEVANT SKILLS

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### Environments

Windows, Linux, Real-Time Embedded Systems

### Programming Languages

C, C++, Python, R, Bash, Cuda, OpenCL

### Tools

Git, Jenkins, CMake, Eclipse, Visual Studio, CI Pipelines

### Machine Learning

EDA, NLP, Time Series, TensorFlow, Deep Learning, Machine Learning for Embedded Systems

## EDUCATION

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### **Southern Methodist University**

*M.Sc in Data Science, Concentration in Machine Learning*

GPA: 4.00, Cum Laude

**Dallas, Texas**

*August 2022*

### **University of North Texas**

*B.Sc in Computer Engineering, Minor in Mathematics*

GPA: 3.76, Cum Laude

**Denton, Texas**

*May 2017*

## ACADEMIC PROJECTS

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### **Master's Thesis and Capstone Project**

*January 2022 – August 2022*

- Automated Essay Evaluation and Student Feedback System using Natural Language Processing and Multi-Armed Bandit Recommender Engine

## PUBLICATIONS

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- Chris Roche, Nathan Deinlein, Darryl Dawkins: *Using Natural Language Processing to Increase Modularity and Interpretability of Automated Essay Evaluation and Student Feedback* published in the SMU Data Science Review, Volume 6, 2022

## VOLUNTEER ACTIVITIES

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- Asst. Coach, McKinney Little League (October 2022 - Present)
- Judge, Invention Convention U.S. Nationals (Multiple Years)
- Judge, NASA Name the 2020 Rover (January 2020 - March 2020)

## INTERESTS

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Emerging Technologies, Machine Learning, Data Analysis, Baseball