

# KATRINA SIEGFRIED

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*Emerging leader with 3.5 years of hands-on experience developing high-quality software for embedded systems in a highly regulated industry and 5 years in educational leadership. Highly values continued learning, looking to make a lateral move to further develop low-level software and hardware skills to create a stronger foundation as an embedded software engineer and technical subject matter expert.*

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## RELEVANT EXPERIENCE

**02/2019 – PRESENT**

### **EMBEDDED SOFTWARE ENGINEER, TERUMOBCT**

**ASSOCIATE SOFTWARE ENGINEER, 08/2019 TO 04/2021**

**GRADUATE SOFTWARE ENGINEER INTERN, 02/2019 TO 08/2019**

- Designing and implementing high-quality real-time embedded linux (yocto on ARM processors) software applications and features (C++11/14/17 with GCC) for novel class III medical devices.
- Driving alignment between systems and software as foundational member of new cross-functional team.
- Contributing to software and systems testing, risk mitigations, and documentation as part of the agile software development process in preparation for upcoming product launch.
- Assisting with testing efforts including unit tests, manual on-device testing, blood-lab testing to exercise software in conjunction with hardware on novel medical devices.

**06/2018 – 12/2018**

### **RESEARCH SCIENTIST, ACTIVE INNOVATIONS**

- Designing and manufacturing one-off testing fixtures for customer products using ATmega328P-based microcontrollers; C++, 3D printing, CNC, automation.:Coordinating with research team and customer to outline deliverables and testing parameters.
- Management of design and budget, promoting safety and efficiency.

## EDUCATION

### **MS COMPUTER SCIENCE, UNIVERSITY OF COLORADO AT BOULDER**

- Pursuing degree part-time while working full-time as a software engineer, expected May 2023
- Graduate certificate in Managing Operation Excellence & Quality Systems.
- Selected Coursework: Adv. Linux Operating Systems, Software Architecture, Computer Architecture.

### **MS INTEGRATIVE PHYSIOLOGY, UNIVERSITY OF COLORADO AT BOULDER**

- Developed, documented, and deployed software for high-quality low-cost biomechanics force plate for use in research and education using Bluetooth, Qt, C++, Windows
- Selected Coursework: Biomechanics of Solids, Human Phys., Adv. Statistics & Research Methods.

### **BS MECHANICAL ENGINEERING, UNIVERSITY OF COLORADO AT BOULDER**

- Led delivery of real-time modeling software for plastic tubing position and deformation in centrifuge-based medical device as Project Manager and Team Lead for year-long capstone project with TerumoBCT.
- Certificate in Biomedical Engineering, pre-med, minor in biology.
- Fundamentals of Engineering Exam Certified (EIT/FE) NCEES ID: 12-648-92.

## TECHNICAL SKILLS

- Programming: C++, C, Linux Bash, python, XML
- Testing: Catch, BDD unit test, automation
- OS: Linux, Yocto, Uboot, WSL
- Debug: GDB, Valgrind, static analysis, sanitizers
- Version Control: Git, github, TFS
- Workflow: Agile SCRUM, JIRA