

# JOSEPH R. KOCIK

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## SKILLS

C, Java, TCL, MATLAB, and MIPS Assembly  
VHDL and computer architecture  
Vivado (Xilinx Zynq-7000 devices)  
GNU/Linux and Windows

## WORK EXPERIENCE

### GRADUATE RESEARCHER [NSF SHREC](#)

AUGUST 2019 – PRESENT

- Researching space computing on FPGAs
- Studying FPGA designs targeting Zynq 7000 series SoCs and the CHREC Space Processor.

### UNDERGRADUATE RESEARCHER [NSF SHREC](#)

FEBRUARY 2017 – JUNE 2019

- Conducted Time-Triggered Ethernet research using simulation software VisualSim Architect and a TTEch hardware testbed.
- Modified image processing library (C) to reduce memory usage (ARM Cortex-A9).

### COMPUTER VISION ENGINEERING INTERN [COLLINS AEROSPACE](#)

JUNE 2019 – AUGUST 2019

- Expanded application (TCL/C) that provided debugging capabilities for the Coalescence mixed reality system.
- Investigated Time of Flight camera for integration with mixed reality system.

### USRA INTERN [NASA JOHNSON SPACE CENTER](#)

JUNE 2018 – AUGUST 2018

- Wrote program to procedurally define Time-Triggered Ethernet networks.
- Supported Time-Triggered Ethernet through software development and planning.

### STUDENT RESEARCH ASSISTANT [UNIVERSITY OF MAINE: CFWRU](#)

SUMMERS 2013 – 2016

- Helped construct mammal tracking telemetry system. Instructed project members in system software use.
- Assisted grad students in sampling, laboratory, and data collection tasks.

### INTERN [PROJECT SHARE \(SALMON HABITAT AND RIVER ENHANCEMENT\)](#)

SUMMERS 2011 – 2012

- Netted, measured, weighed, and identified fish for electrofishing project.
- Conducted Habitat Suitability Indices of salmon and trout streams.
- Restored habitat by relocating logs and boulders. Constructed improved culverts.

## EDUCATION

**UNIVERSITY OF PITTSBURGH** – CURRENT (EXPECTED ~2021)

MASTER OF SCIENCE – ELECTRICAL AND COMPUTER ENGINEERING

**UNIVERSITY OF PITTSBURGH** – CLASS OF 2019

BACHELOR OF SCIENCE – COMPUTER ENGINEERING

- GPA – 3.898, Dean's List 2015-2019