

# Joshua Edgcombe

Michigan

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joshuaedgcombe.com

## Objective

To bring value to society through the application of the skills I've learned and honed.

## Education

<b>Grand Valley State University</b> Padnos College of Engineering and Computing B.S.E./M.S.E. in Electrical & Computer Engineering	Allendale, MI 2014 - 2021
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## Work Experience

<b>DornerWorks</b> <b>FPGA Engineer I</b> Performed STA & Timing Closure Implemented High-Speed Serial Interfaces Provided Resource Estimates & Analysis Performed Board Bring-up Managed Customer Communication	Grand Rapids, MI Mar. 2020 – Present
<b>FPGA Engineering Intern</b> Designed, Developed, And Tested Mission-Critical Digital Logic Learned to Optimize Logic For Latency, Space, or Power Developed Automated Test Frameworks Performed Power Analysis	Aug. 2019 – Mar. 2020
<b>Grand Valley State University</b> <b>Graduate Assistant</b> Created GNU Radio Flowgraphs Developed Python Applications	Grand Rapids, MI May 2018 – May 2019
<b>Twistthink</b> <b>Electrical Engineering Intern</b> Developed Firmware & Device Drivers Performed Hardware In The Loop Testing Led Development of Core Business Software	Holland, MI May 2016 – January 2018

## Skills and Abilities

**Languages & Markups** VHDL, Verilog, SystemVerilog, Tcl, C, C++, Python, MATLAB, Java, C#, Ruby, VBA, Emacs Lisp, L<sup>A</sup>T<sub>E</sub>X, PHP, SQL, Web (HTML5, CSS3, JavaScript)

**Tools** Xilinx Vivado, MicroSemi Libero, Synopsys VCS, ModelSim, QuestaSim, bash, git, asdf, SVN, Emacs, vi, tmux, ftp, SSH, GNU Make, Docker, Kubernetes, Jenkins, GNU Radio

**FPGA Development Boards** Xilinx VCK190(Versal), Digilent Genesys ZU(Zynq UltraScale+), Avnet Zedboard(Zynq-7000), Digilent Basys 3(Artix-7), Digilent PYNQ-Z1(Zynq UltraScale), MicroSemi RTG4, SQRL FK33(Virtex UltraScale+)

**Communication Standards** ARM AMBA(AXI, AXI-Lite, AXI-Stream, APB), SERDES, SPI, I2C, Ethernet(RGMII, XGMII, MDIO), MIPI CSI-2

**Experience accelerating algorithms using FPGA's, DSP's, and GPU's**

**Experience with FPGA's in RF/SDR, networking, cryptography, and video applications**

**Experience with hardware in the loop testing and continuous deployment**

**Passionate about lifelong learning and job responsibilities**