

# Yehowshua Immanuel

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INTERESTS	Compilers, ISA Design, Hardware and Verification Language Tooling, Mathematics and Electromagnetics	
EDUCATION	Georgia Institute of Technology   Atlanta, GA Masters in Computer Engineering	Jan 2019 – Present
	Georgia Institute of Technology   Atlanta, GA Bachelor of Science in Computer Engineering	May 2017 – Dec 2018 GPA: 3.62 / 4.0
	Kennesaw State University   Marietta, GA Transfer with 60 credit hours.	Jun 2016 – May 2017 GPA: 4.0 / 4.0
SKILLS	<b>Computing</b> <b>Software Languages</b> C(expert in C, proficient in rest), C++, Java, Python, Basic HTML, BASH(and most standard UNIX utils.) <b>Hardware Languages</b> VHDL, Verilog, Python Migen HDL, Some Bluespec <b>Software Tools</b> Docker, Git, $\LaTeX$ , VIM, Regular Expressions, some Apache <b>Development Tools</b> GNU/BSD Make, GCC, Sub tools(ie: ar, nm) <b>APIs and Protocols</b> Ethernet, UART <b>Hardware</b> Raspberry Pi, FPGAs, Arduino, Embedded Arm, PCB Design	
	<b>Arts</b> <b>Music</b> Piano, Bass, LMMS(Linux MultiMedia Studio) <b>Film and Animation</b> Blender, Synfig Studio, Inkscape <b>Languages</b> English, proficient in French	
EXPERIENCE	Synergy Lab, ECE Department, Georgia Tech Master's Student,	May 2018 – Aug 2018
	Implementing a reconfigurable ML hardware accelerator in an FPGA and accompanying compiler+driver stack	
	Electronic Systems Warfare Lab, Georgia Tech Research Institute Student Assistant	Summer 2018 and 2019
	Verified the mathematics of various mechanical models of simulated agents in the Scrimmage simulation engine. Scripted and deployed Git version control commit rules Built BSD POSIX Libraries for VXWorks RTOS and wrote accompanying drivers.	
	RetroTech, Georgia Tech Student Assistant	Aug 2017 – May 2018
	Diagnosed and restored legacy computers such as the Macintosh SE 1987. Deployed Verilog logic analyzer in FPGA to facilitate this process	
	Sensors and Electromagnetic Applications Laboratory, Georgia Tech Research Institute Student Assistant	May 2017 – Aug 2017
	Designed a printed circuit power board for an airborne radar.	
PROJECTS	GHDL Maintainer	Jan 2020- Present
	One of the maintainers of the Free and Open Source(FOSS) VHDL simulator GHDL.	
	LibreSOC Engineer,	Dec 2019- Present
	I am a member of the LibreSOC organization currently funded by NLNet to create an open source RISCv capable complete SOC with a GPU that is open source to the bedrock.	
	nMigen Verilator Backend,	Dec 2019- Present
	Currently adding Verilator simulator backend support to the nMigen Python HDL.	

<b>LEADERSHIP</b>	<b>Chi Alpha Worship Band</b>	Aug 2018 – Present
	Played bass for worship team.	
	<b>FutureTech Middle School Outreach</b>	Mar 2018
	Lead FutureTech Exhibit at Georgia Tech to introduce middle schoolers to Computer Engineering	
	<b>BCM Worship Band</b>	Aug 2016 – May 2017
	Played piano for worship team.	