

Thomas Kaunzinger

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 github.com/McNibbler
 [Thomas Kaunzinger](#)

Available January through June 2019

Education

Northeastern University	<i>Boston, MA</i>	<i>2016-2021</i>
<i>Combined Computer Engineering and Computer Science</i>	<i>GPA: 3.55</i>	<i>Dean's List</i>
<ul style="list-style-type: none">Relevant Studies: Embedded Design: Enabling Robotics, Linear Systems, Circuits and Signals, Logic and Computation, Electromagnetic Physics, Computer Networks, CS Fundamentals, Discrete Structures, Linear Algebra, Differential Equations		
Marine Academy of Technology and Environmental Science	<i>Manahawkin, NJ</i>	<i>4.0 Unweighted</i>

Work Experience

XCerra Corp. – LTX/Credence	<i>Norwood, MA</i>	<i>2018</i>
<i>Analog Hardware Design Engineer Co-op</i>	<i>(781) 461 - 1000</i>	<i>Jan-June</i>
<ul style="list-style-type: none">Designed digital/analog schematics and PCBs for high precision RF test equipmentDeveloped drivers and command language structure to interface from GUI to Microcontroller for programming complex ICs at the register level with I²C, SPI, etc.Designed Arduino-compatible microcontroller to interface with low-level componentsWrote scripts for analyzing signals to calculate exact transfer functions and distortion residualsDeveloped program to decode/process Teradyne's STDF data format produced by ATEs to generate massive reportsCreated tools for digital signal processing for captured data and simulations		
Netcetra LLC	<i>Toms River, NJ</i>	<i>2016</i>
<i>Web Design and Marketing Intern</i>	<i>(732) 262 - 7888</i>	<i>Feb-Sep</i>
<ul style="list-style-type: none">Developed websites and applications for international clients using HTML and CSS knowledgeEdited videos, managed ecommerce, social media, SEO, and traffic analytics for numerous clients		

Technical Skills/Experience

Languages	C++, C, Java, R (plus Shiny), Python, Qt, MATLAB, LaTeX, Racket and ACL2 Variants, HTML, CSS, Arduino
Software	Altium, LTSpice, PSpice, TINA, Cadence, Linux, Git, Vim, JetBrains, Visual Studio Code, Sublime Text, Eclipse, Solidworks, AutoCAD, Wireshark, MS Office, Adobe CC, Salesforce
Hardware	Oscilloscope, spectrum analyzers, signal generators, logic analyzers, PSUs, multimeters, FPGAs, embedded systems, micro-soldering, 3D printing, analog and digital RF hardware design, PCB layout
Projects	<i>Custom Keyboard:</i> designed and 3D-printed case, hand-wired/soldered matrix, prepared custom firmware <i>AzEl Satellite Tracker:</i> radio antennae controlled by motorized tracker system to communicate with orbiting satellites <i>Custom Microcontroller:</i> designed custom Arduino-compatible microcontroller that features tiny footprint and 3.3V IO <i>EKG Machine:</i> functioning electrocardiograph built using active analog filtering and DSP <i>Http Web Server:</i> created a web server in Python capable of interpreting http requests and returning requested content <i>Online Forum:</i> built online forum client in Racket capable of adding and searching posts and replies <i>Autonomous Robot:</i> designed hardware and software for autonomous robot to move towards a stimulant

Activities + Leadership/Volunteer Experiences

Northeastern University Undergraduate Research	<i>Boston, MA</i>	<i>2018-present</i>
<ul style="list-style-type: none">Imaging of subdermal blood flow through differences in speckle patterns produced by laser refractionApply digital signal processing techniques to track changes using MATLAB and R		
Northeastern University Wireless Club	<i>Boston, MA</i>	<i>2016-present</i>
<ul style="list-style-type: none">Electrical engineering club to design using wireless technology. On team for satellite tracking/radio communication project.		
Boy Scouts of America (Troop 17)	<i>Brick, NJ</i>	<i>2003-present</i>
<ul style="list-style-type: none">Eagle Scout rank, 55+ Merit Badges, Senior Patrol Leader<ul style="list-style-type: none">Project: constructed concrete wheelchair ramp for church, coordinating and overseeing 40+ scouts and adultsProject valued at \$8200 without labor costs, 520+ personal recorded hoursEstablished local laws for free public/private handicap permit availability (Brick Twp. ordinance §145-5)		
Brick Memorial Marching Band/Ensemble (Trumpet 2012, Tuba 2013-2016)	<i>Brick, NJ</i>	<i>2012-2016</i>
<ul style="list-style-type: none">Nationally recognized champions awarded best band on east coast; performed for thousands at Disney, Metlife stadium, etc.		
BEAK Club	<i>Manahawkin, NJ</i>	<i>2015-present</i>
<ul style="list-style-type: none">Outdoor birding club. Traveled extensively to spot rare bird species. Selected for exclusive World Series of Birding team.		
Northeastern University Concert and Pep Bands – Trumpet	<i>Boston, MA</i>	<i>2016-2018</i>

Personal Attributes

- Proficient in Spanish language, intermediate in Russian
- Passion for digital media. Mastered After Effects, Sony Vegas, GIMP, Photoshop, and Premiere. Entertains thousands of fans.