

Mckenna Cisler

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EDUCATION

B.S. Computer Science <i>Brown University, Providence, RI</i> Courses: Introduction to Software Engineering, Introduction to Computer Systems, Digital Electronics Systems Design	GPA: 3.83 / 4.0	Sept 2016 — May 2020
High School <i>St. Johnsbury Academy, St. Johnsbury, VT</i>	GPA: 92.24 / 100	Aug 2012 — June 2016

RELEVANT EXPERIENCE

Robotics Technician <i>Humanity-Centered Robotics Initiative, Brown University</i>	Sept 2016 — Present
<ul style="list-style-type: none">— Developing generalized video conferencing and teleoperation web platform for robots (NodeJS, P2P, ROS).— Developing hardware interfacing, voice communication, and user interaction design for "Tablebot" – a novel mobile telepresence robot designed to resemble furniture (C++, Python, ROS).— Co-developing NodeJS & NodeMCU-based wireless trash can monitoring system for Brown University Facilities Department; ran two successful one-week trials.— Setting up various ROS-based robots, including the TurtleBot and MIT's DuckieBot self-driving car.— Worked on Raspberry Pi and OpenCV-based dice-reading randomness generator.	
Flight Software Programmer <i>Brown Space Engineering Club, Brown University</i>	Sept 2016 — Present
<ul style="list-style-type: none">— Working on flight software team for CubeSat scheduled to launch in early 2018.— Developing RTOS tasks in C for multi-frequency data recording and transmission packaging.— Co-developing boot sequence and satellite state handling systems.— Co-designing data collection structures and transmission schema; writing reliability tests.— Optimized data structure RAM usage; converted all systems to safer static memory allocation.	
Educational Resource Developer / Camp Instructor <i>White Mountain Science, Inc., Bethlehem, NH</i>	Jan 2015 — Aug 2017
<ul style="list-style-type: none">— Planned and ran STEAM workshops for 3rd – 9th graders.— Designed and configured High Altitude Balloon (HAB) on-board, tracking, and retrieval systems.— Developed an ATtiny85-based "paper circuit" controller to be sold to educators, including documentation, manufacturing, and marketing materials; shipped 10 prototypes to local school.— Developed educational tools and coding lessons (ScratchX extensions, Javascript & Scratch tutorials).	

PERSONAL PROJECTS

- Co-created [Java / Javascript](#) webapp for Wikipedia Game; co-designed and debugged websocket communication framework, designed Wikipedia page crawling, caching, and dynamic game generation; decreased memory usage by 60% for Heroku deployment. *Introduction to Software Engineering final team project*
- Developed [Javascript-based](#) academic citation conversion engine and [Apache / PHP](#) web app; 1000+ weekly visitors.
- Co-created music queue web app for crowd-sourced playlists with [Meteor](#), [MongoDB](#). *Hack@Brown hackathon team*
- Co-created visualization of socioeconomic data on Hubway stations using [NodeJS](#), [D3.js](#). *Brown Datathon team*
- Designed [Raspberry Pi-based](#) alarm clock with [Python](#) backend to web interface.

SKILLS

Languages	Strong in Java ; Proficient in Javascript , C & Python ; Experience with C++
Tools	Strong in jQuery , Bootstrap & Git (CLI) ; Proficient in NodeJS , React , Python Tornado , ROS & FreeRTOS
Other	Experience with CAD (Inventor , OnShape), 3D Printing, Laser Cutting & Lathe Experience with graphic design (Blender , Premier , GIMP , Photoshop) Licensed amateur radio operator (awaiting call sign) Student Pilot Certificate (licensed to train solo)

References upon request