

Mckenna Cisler

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EDUCATION

B.S. Computer Science <i>Brown University, Providence, RI</i>	GPA: 3.83 / 4.0	Sept 2016 — May 2020
High School <i>St. Johnsbury Academy, St. Johnsbury, VT</i>	GPA: 92.24 / 100	August 2012 — June 2016

RELEVANT EXPERIENCE

Robotics Technician

Humanity-Centered Robotics Initiative, Brown University

Sept. 2016 — Present

- Working on generalized video conferencing and teleoperation web platform for robots ([NodeJS](#), [ROS](#)).
- Working on 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.
- 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

Brown Space Engineering Club

Sept. 2016 — Present

- Working on flight software for CubeSat scheduled to launch in early 2018.
- Writing [RTOS](#) tasks in [C](#) for multi-frequency data recording and transmission packaging.
- Working on 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 static memory allocation.

Educational Resource Developer / Camp Instructor

White Mountain Science, Inc., Bethlehem, NH

Jan. 2015 — Aug. 2017

- Planned and ran STEAM workshops for 3rd – 9th graders.
- Developed 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 demo to local school.
- Developed and assembled educational tools and resources including IoT devices, ScratchX extensions, and a Raspberry Pi-based Sphero programming interface.

PERSONAL PROJECTS

- [Java / Javascript](#) webapp for Wikipedia Game; co-designed and debugged websocket communication framework, designed Wikipedia page crawling, caching, and dynamic game generation; optimized memory usage for Heroku deployment. *CSCI 0320 final team project*
- Music queue web app for crowd-sourced playlists using [Meteor](#), [MongoDB](#). *Hack@Brown hackathon team*
- [Javascript-based](#) academic citation conversion engine and [Apache / PHP](#) web app.
- Visualization of socioeconomic data on Hubway stations using [NodeJS](#), [D3.js](#). *Brown Datathon team*
- [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)