

# Nathan Kiesman

+1 (559) 827-5140 • [nwk2103@columbia.edu](mailto:nwk2103@columbia.edu) • [nkizz.com](http://nkizz.com)

## Experience

### Spin Analytical

June 2017 - August 2021

- Designed, built and delivered an automated, microfluidics platform to incubate, measure and purify radioactive solutions for a top pharmaceutical manufacturer's pilot program to automate drug synthesis.
- Integrated hardware including a sensor array, robotic gantry and pipet system.
- Planned and wrote user interface, component drivers, analysis protocol and bench test modules.
- Created hardware and software for optical centrifuge rotor calibration deployed in over 50 research labs. This enabled faster and more accurate charge measurement of protein solutions.

### !!Con, Speaker

May 2021

- Presented talk on the use of the Teensy Microcontroller to play real instruments in rhythm games.

### Small File Film Festival

August 2020

- Won *Best Cross-Platform Work* for entry "New Beginnings", created for the Gameboy Advance

### Writer, 2600

April 2020

- Wrote an article on Internet preservation and archival for hacking/technology magazine 2600

### Permit Log

February 2017-2019

- Won first place in the Maine App Challenge and was awarded a \$6000 scholarship
- Worked on a team of three to develop "Permit Log" to help teen drivers track their driving
- Supported over 3000 active Android users over multiple versions
- Won third place the following year for our next app, "Class Act"

### Independent Projects

Restored and internet enabled a Teletype Hacked an EEG interface to work over networks  
Used real-time internet audio to restore a defunct 1990s modem network

## Education

Columbia University SEAS, Major in Electrical Engineering, Minor in history, 3.24 GPA  
Dartmouth College, Microprocessors in Engineered Systems (ENGS 62)  
University of Maine, Micro/Macroeconomics (ECO 120/121)  
Marshwood High School, South Berwick, Maine

## Membership

President, Columbia Taiko Drumming	Tri-M Music Honor Society Historian
Co-President of Marshwood Coding Club	Senior Class Historian
Marshwood Math Team	Air Force Cyberpatriots Security Competition
ESP/MIT Splash 2015-2018	National Honor Society
Port City Makerspace, Portsmouth, NH	Wheaton Whealead Conference

## Awards

Freshman Science Student of the Year	Maintained Honors or High Honors 2015-2018
Math Team (6th place team in Maine)	Music Department Outstanding Achievement
Cyberpatriots (1st in Maine, 36th worldwide)	350,000 Youtube Views

## Skills

EAGLE, KiCad, Arduino, Teensy, Raspberry Pi, ESP32, STM32F4, C, C++, Qt, Java, Python, Pascal/Lazarus, Analog and digital electronics design, PCB design and manufacturing, Final Cut Pro, Adobe Premiere