

# Marshall Wilson

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**GitHub:** <https://github.com/Marshall-Wilson> | **Portfolio:** [www.marshallwilson.info](http://www.marshallwilson.info)

## STATEMENT

Software engineer and former research coordinator and science educator. Seeking to bring a strong fundamental knowledge of software design, a talent for teamwork and communication, and a passion for data science and problem solving to your team.

## SKILLS

- Proficient in Python, C/C++, JavaScript, and VBA
- Web development using JavaScript (React, Node), HTML, and CSS
- Machine Learning and Optimization using Google OR-Tools, Numpy, Pandas, and Scikit-learn
- Data Analysis and visualization using Python, R (ggplot2) and MATLAB
- Git, Visual Studio, Unix Terminal, Bash scripting, and LaTeX
- Object Oriented Design, Algorithms, Data Structures, Programming Languages, and Software Testing

## EDUCATION

**Tufts University** | Post-Bacc in Computer Science | GPA: 4.0 | Sept 2020 – Aug 2021

**Dartmouth College** | B.A.: Major in Biology | GPA: 3.51 | 2013 – 2017

## COURSEWORK

Algorithms, Data Structures, Advanced Algorithms, Machine Structure & Assembly-Language Programming, Discrete Mathematics, Programming and Computation, Statistics and Experimental Design, Biostatistics, Full-Stack Engineering (on Codecademy), Machine Learning with Python (on EdX)

## PROJECTS

**Universal Machine Emulator** (C) - <https://github.com/Marshall-Wilson/UM-Emulator>

- Emulates a custom, Turing-complete machine with segmented memory

**MOS Overnight Employee Scheduler** (Python) - [https://github.com/Marshall-Wilson/employee\\_scheduler](https://github.com/Marshall-Wilson/employee_scheduler)

- Automatically generates part-time employee schedules according to availability using OR-Tools

**Spotify Artist Explorer** (JavaScript (React)) - <https://marshallwilson.info/#/explorer>

- Uses Spotify's API to generate a path between any two artists through their related artists

## WORK EXPERIENCE

**Research Assistant, Dogar Lab, Tufts University** Nov. 2020 – Present

- Assist in feature planning and grant writing for a new hybrid civic meeting technology

**Logistics Coordinator, Museum of Science Overnight Programs** Oct. 2019 – Apr. 2020

- Managed billing, accommodations, and scheduling for multiple ~500 person events per week
- Developed a Python program for automatically generating employee schedules

**Program Assistant, Massachusetts Institute of Technology** Sept. 2018 – Oct. 2019

- Coordinated events, budgets, and grant proposals for 25 labs across 11 universities
- Managed data collection and analysis for yearly NSF reporting

**Forum Fellow, Museum of Science Forums Department** Aug. 2017 – Sept. 2018

- Created public engagement programs around the intersections of science, policy, and ethics

**Farm Intern, Dartmouth Organic Farm** Mar. 2016 – Jun. 2017

- Handled crop production from seed to buyer at a small teaching farm