

Experience **Lewis Rhodes Labs** **West Concord, MA**
Consultant 10/18–1/19

- Adapted marketing materials from PowerPoint to a modern web format, using Django & Wagtail CMS to allow flexible page layouts, hosted on Google Cloud for secure client review.
- Wrote Python and JavaScript to consume and display realtime data from a hardware prototype via Redis.

Workshop School **Philadelphia, PA**
Technology Coordinator 9/13–6/16

- Deployed and maintained 200+ Chromebooks, 50+ iMacs, and 25 Windows desktops for students in a project-based interdisciplinary CTE (Engineering & Automotive) high school.
- Spearheaded CS/tech education by teaching programming & web design; designing curriculum and teacher PD; mentoring student projects; advising the Computer Club; and organizing career exploration.
- Trained and supervised students & staff using the fabrication shop. Example projects: building a recording studio; laminating & decorating skateboard decks; designing & constructing solar battery chargers.

MIT OpenCourseWare **Cambridge, MA**
Department Liaison 7/07–4/13

- Published 75+ courses under a Creative Commons license, producing multimedia, copyright-cleared material, sample student work, transcribed notes, custom site architecture, and other features as needed.
- Supervised HTML/document authoring contractors and coordinated with IP and Production teams to design rich online educational content, meeting the needs of OCW users, individual faculty, and MIT as an institution.
- For the MIT-SUTD Collaboration, designed processes and trained staff to produce teaching materials for 87 classes, delivered to the Singapore University of Technology & Design (SUTD) by April 2012.

Projects

- **Advent of Code**: An annual puzzle competition, with polished and annotated solutions in Python for 2016 and partial work in other years.
- **buffer-adventure**: A vampire slayer text-adventure game. Originally an excuse to review object-oriented programming in Python, now a way to try out static typing with **mypy** and regression testing/TDD.
- **hhd-music**: High Holidays music typeset using Lilypond, a text-based music editor.
- **berrybasket**: Datalogging and in-class analysis for 5th & 6th grade students, exploring the heat retention in cardboard model houses. Presented at the Open Hardware Summit 2013.

Education

Kaggle (2020)	Pandas , Intro to ML , Intermediate ML , Deep Learning , Data Visualization
IBM (2018)	Data Science Foundations Level 2 , Applied Data Science with Python - Level 2
Codecademy	Bash , Regex , Git , JavaScript , Node-SQLite , React Part 1 & Part 2

Massachusetts Institute of Technology **Cambridge, MA**
Bachelor of Science, Physics June 2007
Thesis: Self-Assembly of Conformal Polymer Electrolyte Film for Lithium Ion Microbatteries

Skills

Software	Python, HTML/CSS, SQL, JavaScript, \LaTeX , Scratch, App Inventor
Fabrication	3D printing, laser cutting, CNC woodworking, Arduino, RasPi, circuit design/testing
General	Project management, proofreading/copyediting, experimental design