

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, Regexp, 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, L ^A T _E X, Scratch, App Inventor
Fabrication	3D printing, laser cutting, CNC woodworking, Arduino, RasPi, circuit design/testing
General	Project management, proofreading/copyediting, experimental design