

Sam A. Hill, Ph.D.

Software Developer, Educator, Writer

Toledo, Ohio

U.S. CITIZEN, OPEN FOR REMOTE OR HYBRID EMPLOYMENT

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Skills

- **JavaScript** (11+ years): ES6, jQuery, MathJax, Raphaël.js, Snap.svg, React.js, Node.js, Express.js
- **HTML** (26 years): HTML5, semantic markup
- **CSS** (9+ years): CSS3, flexbox, grid, variables, transitions
- **Python** (9+ years): Tkinter, NumPy, SciPy, Pandas, NetworkX, CGI, OAuth
- **C/C++**
- **SQLite**
- **TCL/Tk** (11+ years)
- Other languages: PHP, Fortran, LSL, Lua
- Mac and Unix/Linux operating systems
- Git, JIRA, Docker

Work History

- **Assistant Professor of Physics**, 2016-2023. Adrian College, Adrian MI.
 - Taught physics classes at all levels of the undergraduate curriculum.
 - Worked with **Google Applied Computing** to develop and teach computer science courses in Python and Data Science, and contributed to the Runestone Academy online textbook codebase.
 - Served as **physics department chair** (2018-2022) and **chair of the curriculum committee** (2019-2022).
- **Visiting and Adjunct Professor of Physics**, 2009-2016. University of Toledo, Toledo OH.

Selected Projects

CURRICULUM TRACKING SOFTWARE

- Web-based software used by Adrian College 2018-2023 to track curriculum changes
- Replaced system of exchanging Word documents back and forth via email
- Used Google API to read faculty input from Google Sheets, which was compiled and presented in a format identical to the previous set of forms, sortable and filterable, in a centralized location
- Written in Javascript (front-end) and Python/SQLite (back-end)
- Secured hosting on NearlyFreeSpeech.net

DATA MODELLING AND ANALYSIS

- Published nine academic papers (eight peer-reviewed) in various fields of computational physics
- Developed an extreme familiarity with data modelling and analysis using custom C, C++, Python, and Mathematica code, as well as frameworks such as NetworkX.
- Experience modelling hydrodynamics, transportation, and social networks.

CHURCH PHOTO DIRECTORY

- An online web app that allows churches to produce and maintain a photo directory for their parish.
- Written in Javascript, with a backend in Express.js and SQLite.
- Currently in use by a local church

Education

- **B.A. in Physics and Mathematics**, 1997. Williams College, Williamstown MA.
- **S.M. in Physics**, 2001. University of Chicago, Chicago IL.
- **Ph.D. in Physics**, 2002. University of Chicago, Chicago IL.

Certification

- Google's Foundations of User Experience (UX) Design, 2023.

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