

Matthew David Litwin

Software Engineering Manager and Lead

Experienced in managing engineers, designing and implementing front-end and back-end systems, and educational software.

Experience / Work History

McGraw Hill Education

07/31/2012 – Present

Software Engineering Manager *Team Lead and Manager Responsibilities*

- Lead a diverse Full Cycle engineering team
- Backend, front-end, infrastructure and support
- Management of full time employees, contractors, and vendors

Smartbook 2

An HTML5 update / rethink of older (flash based) Smartbook product. My team created the authoring application for augmenting ePub content with rich metadata, enabling an adaptive end-user experience. Angular 7 on the front-end, and multiple backend components (php, node).

Rich-Text Glossary

This was a component of MHE's authoring suite, enabled author creation of banks of Glossary terms and definitions. Supported rich text, images, multiple languages. AngularJS on the front-end, node on the back-end.

Software Engineering Lead Design and implementation of "Web Sketchpad", an HTML5 viewer for Geometer's Sketchpad documents. This was a ground-up re-implementation of the desktop software's internal C logic into HTML5 / JavaScript.

- Planning and design
- Implementation: coding, and directing developers
- Negotiating feature-set and schedule with stakeholders

KCP Technologies

03/22/1999 – 07/31/2012

Junior Programmer to Senior Software Engineer

- Technical project management, several direct reports
- C, Windows MFC, and Mac Objective C programming on *The Geometer's Sketchpad*, a math education Dynamic Geometry visualization and interaction application.

- Mac and Windows programming on *FathomTM Dynamic DataTM Software* with an in-house cross-platform C++ framework

Skills

- Practices: Scrum, Agile Programming, XP, Pair Programming
- IDEs: XCode, Visual Studio
- Source Control: git (svn, CVS)
- Issue Tracking: JIRA, Bugzilla, Trello
- Content Management Systems: Confluence, MediaWiki

Programming Languages

- HTML5/JavaScript/typescript Application Development
- C / C++
- terraform
- node, Perl, PHP, bash

Education

- University of California, Santa Barbara - MS Mathematics - 1997
- University of California, Berkeley - BS Mathematics - 1994

Contacts

- mlitwin@sonic.net
- [github](#)
- [linkedin](#)