



JAMES WRUBEL

About Me

Work Experience

Education

Publications & Presentations

Finding Me

- 124 Hunter Drive  
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- twitter.com/jameswrubel
- github.com/jwrubel
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About Me

I'm an entrepreneurially-minded multidisciplinary leader with 20+ years building, launching, and scaling internet-based initiatives. I bring a strong technical perspective to business challenges (and vice versa), and I'm uniquely experienced in rallying Software Development, UX, Product Management, Data Science, DevOps, Customer Service, and Digital Marketing teams toward business objectives. I can interpret stacktraces and corporate income statements equally well, and as a leader I have a passion for creating environments that foster diversity, creativity, learning and growth.

Work Experience

Chief Technology Officer April 2011 - present  
THINK THROUGH LEARNING, INC Pittsburgh, PA USA

I define and drive the efficacy and impact of the Company's platform, Think Through Math. TTM is an adaptive online learning environment designed to help struggling students in grades 3 through High School learn to love math. As CTO I lead multiple groups within the company, including Product Management, UX, Software Engineering, Quality Assurance, DevOps, Data Science, IT, and Customer Success.

Highlights

- Line manager for a 30+ member crossfunctional product team
- Rebuilt the company's core platform as a polyglot app using Ruby on Rails, node.js, backbone+marionette, PostgreSQL and redis
- Partnering with the executive team, grew TTL from \$5MM to \$20+MM in annual revenue and scale from 150,000 students to over 3.3 million per year
- Transitioned the platform to AWS and scaled infrastructure to support over 3.3 million students doing a billion math problems a year (roughly the same size as Khan Academy)
- Championed the organization's contributions to Open Source and diversity efforts
- Expanded TTM's platform to mobile devices through RWD to improve the company's market reach and impact
- Revised the recruiting and hiring process for technical and product staff (documented on the development team's blog), which doubled the average tenure of engineers at Think Through Learning.
- Championed the company's student data privacy and security initiative



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## Technical Manager, Immersive Learning

January 2004 - March 2011

SOFTWARE ENGINEERING INSTITUTE

AT CARNEGIE MELLON UNIVERSITY

Pittsburgh, PA USA

Line-Of-Business Manager for the SEI CERT Program's Cyber Security e-learning support for the U.S. Department of Defense (DoD) and Federal civilian agencies. My team's mission was to invent, prototype, and launch solutions to unique problems in cyber security. Partnered with military and federal agencies to reduce risk, save money, and save lives through advanced cybersecurity training and education.



### Highlights

- ◆ Implemented, and championed the rollout of the Virtual Training Environment (VTE), offering on-demand hands-on training in cybersecurity, computer forensics, commercial networking products, and offensive cyber toolkits for 125,000 Cybersecurity and IT staff across the globe
- ◆ Grew the program from initial prototype to a \$6.4m program with a staff of 18 software developers, infrastructure engineers, and product specialists
- ◆ Launched first streaming video implementation on DoD backbone networks
- ◆ Concepted and implemented sandboxed training for offensive Cyber capabilities

## Solutions Architect

October 2002 - August 2003

ARNOLD WORLDWIDE

Boston, MA USA

Project and technical lead focused on large-scale implementations of presentation-layer experiential and functional Web properties. Led a \$1.8 million full redesign of the corporate presence and reservation engine for a major cruise line, managing information architecture, design, copy, search engine optimization, and online video updates.

## Principal

October 2001 - October 2002

THE U PRODUCTIONS

Franklin, MA USA

Independent consultant to regional businesses focused on web design, development and deployment. Implement workflow-based web applications and digital marketing initiatives.

## Sr. Project Manager

October 2000 - October 2001

BIT GROUP, INC

Boston, MA USA

Project lead for client engagements responsible for leading Web application design and development teams of up to 13. Managed schedule, budget and deliverables for a \$2m Web-based custom workflow application for the temporary staffing arm of Fidelity Investments.



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## Sr. Project Manager

February 2000 – October 2000

ZENTROPY PARTNERS



Boston, MA USA

Project manager, client partner and implementation lead for User Experience Design projects and engagements of strategic and financial importance to the organization. Acting Group Director from April 2000 through October 2000; responsibilities included resource allocation, training and development and human resources for branch project management resources.

## Operations Manager, E-business Engineering

October 1997 – February 2000

GTE INTERNETWORKING, POWERED BY BBN



Cambridge, MA USA

Department controller with fiscal responsibility for internal operations and project budgets. Launched an e-business consulting and implementation group within the company connecting custom web application development with the company's core internetworking products.

## Senior Application Specialist

June 1995 – October 1997

CERNER CORPORATION



Burlington, MA USA

## Education

### Carnegie Mellon University

May 2007

MS, IT MANAGEMENT



Pittsburgh, PA USA

### The University of Michigan

June 1995

BA, INDUSTRIAL PSYCHOLOGY



Ann Arbor, MI USA

## Publications & Presentations

### ◆ Replicating and Sharing Computer Security Laboratory Environments

Kara Nance, Brian Hay, Ronald Dodge, James Wrubel, Steve Burd, Alex Seazzu

HICSS, 2009, 2014 47th Hawaii International Conference on System Sciences, 2014 47th Hawaii International Conference on System Sciences 2009, pp. 1-10, doi:10.1109/HICSS.2009.882

### ◆ High Fidelity E-learning: The SEI's Virtual Training Environment

James Wrubel, David W. White, Julia Allen

CMU/SEI-2009-TR-005. Software Engineering Institute, Carnegie Mellon University. 2009.

### ◆ VTE: The Virtual Training Environment - Advanced Virtual Lab Authoring and Delivery

Constantine A. Cois, Justin Beckwith, James Wrubel, Jeremy Herrman  
CSEDU 2010 - Proceedings of the Second International Conference on Computer Supported Education, Valencia, Spain, April 7-10, 2010 - Volume 1 2010