

# Chris Geihlsler

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## Experience

### Think Through Learning (TTL)

Senior Software Engineer/Generalist/Engineering Manager

Pittsburgh, PA

January 2013 - Present

Developed TTL's flagship product, Think Through Math (TTM): an online, web-based, remedial math tutoring application focusing on students in grades 3-9.

- Designed, developed, tested, and deployed user-facing features in Ruby on Rails.
- Helped scale TTM to support 3,000,000 students completing over a billion math problems per school year. At peak load, TTM processes 45,000 requests per minute with an average response time of 65ms.
- Designed and implemented a reporting service that manages billions of rows and processes report requests from teachers, school administrators, and TTL employees.
- Developed a responsive, mobile-friendly "lesson player" SPA in Backbone/Marionette that presents TTM's math problems, help content, and instructional videos to its students.
- Developed a Node.js/Angular chat application that enables students to receive math instruction from and communicate with teachers in real-time.
- Utilized a simple branching strategy, feature flags, and an "automate everything" attitude to easily, reliably, and continuously deploy our applications to the cloud.
- Aggressively refactored the system to improve maintainability and reduce complexity.
- Acted as functional manager for three software engineers. Responsible for providing actionable feedback, conducting performance reviews, setting goals and objectives, and managing the hiring process.

### Omnyx

Senior Software Engineer

Pittsburgh, PA

November 2008 - January 2013

Developed Omnyx's Integrated Digital Pathology (IDP) system: an enterprise application that allows anatomic pathologists to accurately and quickly diagnose patients by replacing a workflow of glass slides, microscopes, and paper records with digital images, electronic records, and integration to other systems within the hospital.

- Designed, developed, and tested user-facing features using C#, WPF, WCF, NHibernate, and SQL Server.
- Built control software for a high precision medical imaging device in C# and C++. Utilized messaging patterns to coordinate the movements of a high-speed robot with extremely sensitive optics.
- Optimized SQL queries and application logic to support millions of patient cases.

### CareCentric

Software Engineer/Technical Team Lead

Atlanta, GA/Pittsburgh, PA

May 2003 – November 2008

Developed and maintained Ac-Cura: a smart client home healthcare management software product that allowed customers to intake patients, collect clinical data, and generate healthcare claims.

- Designed and implemented a layered architecture using C#, WinForms, IIS, and SQL Server.

## Community

- Presented "Make the Big Change ... One Small Change at a Time" at Abstractions 2016.
- Presented "Elixir vs. Node: Callback-free Concurrency" at CodeMash 2015 and Code and Supply.
- Organizer for Steel City Ruby Conference and regular attendee of the Pittsburgh Ruby meetup.
- Attended Udi Dahan's *Advanced Distributed Systems Design with SOA* in Austin, TX.

## Tools/APIs

OSS: Ruby 1.9-2.2, Rails 3.x-5.x, Node.js, Backbone, Angular, Postgres 9.x, Redis, Elixir, Solr, Heroku, AWS, git, vim  
MS: .NET Framework 1.1-4.0, WPF, WCF, NHibernate, NServiceBus, MSSQL Server 2000-2008

## Education

### Georgia Institute of Technology (Georgia Tech)

B.S. in Computer Science, GPA: 3.25 (Honors)

Specializations in Graphics and Networking

Atlanta, GA

1998 - 2003

HOPE Scholar, National Merit Scholar, Member of National Society of Collegiate Scholars