

## Morgan Thomas

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# Software Engineer with Leading-Edge Applied Math

Versatile problem-solver employing best practices in analysis, engineering, algorithms, and code.

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**Core Competencies** Delivering correct software based on solid engineering  
Clear technical communication tuned to audience and context  
Sound and innovative mathematical analysis of real-world problems

**Selected Skills** **Programming languages**  
Haskell C# JavaScript dabbled in many  
**Software engineering**  
Agile Web frontends and APIs Linux Windows Git Automated testing/TDD  
**Computer science**  
Data structures Complexity analysis (big- $O$ , etc.) Parsing Formal languages  
**JavaScript technologies**  
node React Angular Vue ES6+ Webpack Express Swagger  
**Applied math**  
Logic Statistics and probability Graph theory  
Calculus Linear algebra Numerical optimization  
**Communication**  
Documentation/technical writing Teaching Self-teaching Good listener

**Professional Experience** **Developer. IHS Markit. Oct. 2015 – present.**  
Create and maintain Web based financial research software for some of world's largest investment management companies.

**JavaScript Instructor. Saisoft, Inc. (contractor for).  
Nov. 2015 – Dec. 2015.**  
Trained IT professionals in JavaScript using self-developed courseware.

**Current Project** **FreeCat** <https://github.com/morganthomas/freecat>  
A programming language descending from Haskell and Idris, founded on new ideas in type theory. Developing in Haskell.

**Education** **University of Connecticut. Philosophy, MA. 2013 – 2015.**  
Research resulted in three publications in top logic journals.  
Cumulative GPA 4.1.

**Arizona State University. Psychology, BS. 2009 – 2013.**  
Minors, Mathematics and Philosophy. Thesis on philosophy of computation.  
Cumulative GPA 3.83.

**Academic Honors** Top scorer, Putnam Mathematical Competition at Arizona State University. 2013.  
National Merit Scholar. 2009.