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.

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

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.

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.

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.