

# JPSmith

Student, Hacker, Adventurer

## about

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## languages

english  
basic spanish

## programming

haskell  
technical writing  
idris  
python  
go

## interests

functional programming, type theory, mathematics, information security, category theory, formal verification, technical writing, category theory, programming language theory, cryptography, vim

## education

- |           |   |                             |
|-----------|---|-----------------------------|
| 2012–2015 | <b>Illinois State University</b><br>Mathematics through Complex Analysis<br>Computer Science independent study and research | Part-Time Student           |
| 2010–2015 | <b>Bloomington Central Catholic High School</b><br>Focus on mathematics and the sciences                                    | Full-Time Student           |
| 2014      | <b>Stanford University</b><br>Cryptography from Dan Boneh   | Online Student via Coursera |

## experience

- |           |  |                |
|-----------|--|----------------|
| 2014      | <b>Ingersoll Scout Reservation</b><br><i>Managed a staff of two and a building, taught more than 1,000 children.</i>   | STEM Director  |
| 2013-2014 | <b>The Katie School of Insurance and Risk Management</b><br><i>Focused on machine learning and security in unmanned aerial systems, especially with regard to integration with businesses.</i> | Researcher     |
| 2013-2014 | <b>ISUSEC</b><br><i>Taught students security concepts and practice, promoted meetings and events, and built capture the flag competitions</i>  | Vice President |

## projects

- |      |   |                                 |
|------|---|---------------------------------|
| 2014 | <b>TARTS</b><br>Formally verified cryptosystems' resistance to timing attacks with the Curry-Howard isomorphism<br>Applied to present at THOTCON 2015.                | github.com/japesinator/tarts    |
| 2014 | <b>Fire*</b><br>Wrote documentation for a distributed system for computation and communication and then set up readthedocs for easy access and versioning.            | github.com/mempko/firestr       |
| 2014 | <b>The Idris Language</b><br>Wrote part of the standard vector library, formally verified functors, applicatives, and monads, and part of the standard stream library | github.com/idris-lang/Idris-dev |