

# Jude C. Nelson

Stacks Open Internet Foundation  
1950 W. Corporate Way #32788  
Anaheim, CA 92801

Email: [jude@stacks.org](mailto:jude@stacks.org)  
URL: <http://judecnelson.com>

Nationality: American

## Current position

*Research Scientist*, Stacks Open Internet Foundation

## Areas of specialisation

Computer Science; Computer Networks; Peer-to-Peer Storage Systems

## Appointments held

2009-2010	IBM Student Co-op, IBM Tucson
2011-2012	Teaching Assistant, Princeton University
2012-2016	Research Assistant, Princeton University
2016-2020	Engineering Partner, Blockstack PBC
2020-2021	Research Scientist, Stacks Open Internet Foundation

## Education

2010	BS in Computer Science, University of Arizona
2012	MA in Computer Science, Princeton University
2018	PhD in Computer Science, Princeton University

## Grants, honors & awards

2006	President's Award for Excellence Scholarship. \$24,000
2017	CC*DNI DIBBS #1541318, National Science Foundation. \$1,597,862

## Publications & talks

### CONFERENCE PROCEEDINGS

- 2014 Nelson, Jude; Peterson, Larry L. (2014), "Syndicate: Virtual Cloud Storage through Provider Composition," *BigSystem '14*: 1-8. <https://doi.org/10.1145/2609441.2609639>
- 2016a Ali, Muneeb; Nelson, Jude; Shea, Ryan; Freedman, Michael J. (2016), "Blockstack: A Global Naming and Storage System Secured by Blockchains," *USENIX Annual Technical Conference '16*: 181-194. <https://dl.acm.org/doi/10.5555/3026959.3026977>
- 2016b Nelson, Jude; Ali, Muneeb; Shea, Ryan; Freedman, Michael J. (2016), "Extending Existing Blockchains with Virtualchain," *Distributed Cryptocurrencies and Consensus Ledgers '16*.

### MAGAZINE ARTICLES

- 2016 Ali, Muneeb; Nelson, Jude; Shea, Ryan; Freedman, Michael J. (2016), "Bootstrapping Trust in Distributed Systems with Blockchains," *USENIX ;login::* 41: 52-58.

### JOURNAL ARTICLES

- 2010 Nelson, Jude (2010), "An Improved Multiprotocol Application Data Transfer Service," *Technical Report*, University of Arizona.
- 2018 Nelson, Jude (2018), "Wide-area Software-defined Storage," *PhD dissertation*.

### TALKS

- 2011 Nelson, Jude; Peterson, Larry L. (2011), "Syndicate: A Scalable Distributed Filesystem driven by a Content Distribution Network." Internet2 Fall 2011 Member Meeting. October 3-6, 2011. Raleigh, NC, USA.
- 2018 Nelson, Jude (2018), "Subdomains: Scalable User Registration," Blockstack Berlin. 22 March 2018, Berlin, Germany. [https://www.youtube.com/watch?v=ffprmuFD\\_d8](https://www.youtube.com/watch?v=ffprmuFD_d8)
- 2019 Nelson, Jude (2019), "The Stacks Blockchain," Decentralizing the World Tour. 23 January 2019, Hong Kong, PRC. <https://www.youtube.com/watch?v=anj4BCs8GaI>
- 2020 Nelson, Jude (2020), "Towards a User-Owned Web," Naval Postgraduate School. 22 May 2020, Monterey, CA, USA.

### PATENTS

- 2020a Nelson, Jude; Blankstein, Aaron; Salibra, Lawrence; et al. (24 March 2020). "Platform and associated method for authenticating the identity of a user in a decentralized system without need for a third-party identity service." US Patent No. #10,601,829.
- 2020b Blankstein, Aaron; Nelson, Jude; Salibra, Lawrence; et al. (28 April 2020). "Migrating data for decentralized applications between disparate backend storage providers." US Patent No. #10,637,666.
- 2020c Liao, Yukan; Little, Matthew; Nelson, Jude; et al. (26 May 2020). "Systems and methods for encrypting data in backend storage caches shared by multiple decentralized applications." US Patent No. #10,664,451.
- 2020d Nelson, Jude. (30 June 2020). "Systems and methods for forming application-specific blockchains."

US Patent No. #10,698,728.

2020e Blankstein, Aaron; Nelson, Jude. (30 June 2020). "System and method for smart contract publishing." US Patent No. #10,699,269.

2020f Blankstein, Aaron; Nelson, Jude; Salibra, Lawrence; et al. (29 December 2020). "Backup of encrypted information stored off-chain in a blockchain-based decentralized storage system." US Patent No. #10,880,076.

Last updated: January 22, 2021