

Dr. Virgil Griffith

AVANT-GARDE TECHNOLOGIST · SCIENTIST

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Summary

I mix novel technology and social insight to solve hard problems in legal tech, blockchains, and smart-contracts.

Interests privacy enhancing technologies, data-science, Internet governance, legal tech, machine intelligence, complexity theory
Notable Work [Blackboard](#), [Maiden Names](#), [Polyworld](#), [WikiScanner](#), [Musicthatmakesyoudumb](#), [φ](#), [Tor2web](#), [Tor Roster](#), [OnionLink](#)
Proficiencies Python, R, ~~L~~TEX, C++, Haskell, Splunk, MATLAB, git, awk, Tor, dark web, Mac OSX, Linux, statistics, information theory

Education

California Institute of Technology

Pasadena, CA

PH.D. COMPUTATION AND NEURAL SYSTEMS

Sept 2007 - Dec 2013

- Information theory and high-performance C++ for quantifying neural network complexity
- Thesis: [Quantifying Synergistic Information](#) / Advisor: Christof Koch / GPA 3.4

University of Alabama

Tuscaloosa, AL

B.S. COMPUTER AND COGNITIVE SCIENCE

Sept 2002 - May 2004

- Graduated cum laude in May 2007. Studying cognitive psychology, neuroscience, biophysics. GPA 3.7

Employment

Ethereum Foundation

Singapore

RESEARCH SCIENTIST

Oct 2016 - Present

- Reviewing technical papers in game theory, distributed systems, blockchains.
- Developing decentralized VPN system to replace Tor.

Singapore-MIT Alliance for Research and Technology

Singapore

POSTDOCTORAL RESEARCHER

Sept 2016 - Present

- Researching graph-theoretic patterns in Darkweb and quantifying of Singapore's social segregation.

Intelllex

Singapore

SENIOR DATA SCIENTIST

March 2016 - Sept 2016

- Machine Learning for LegalTech doing document classification and search engines result prioritization.

National University Singapore: School of Computing

Singapore

RESEARCH FELLOW

Mar 2015 - Feb 2016

- Led dark web research group; advised cryptocurrency group.

Toroken

San Francisco, CA

TECHNICAL PRODUCT MANAGER

Feb 2014 - Sept 2014

- Led team to develop a blockchain-based currency for running Tor relays.
- Won 250k at 2014 Texas Bitcoin Conference.

Adruptive Industries

San Francisco, CA

CO-FOUNDER

Dec 2008 - Jan 2012

- Invented a targeted advertising method so effective browsers were patched to stop it.

Indiana University: School of Informatics

Bloomington, IN

RESEARCH ASSOCIATE

June 2004 - May 2007

- Derived mother's maiden name for ~10% of Texans.

University of Alabama: Arts and Sciences

Tuscaloosa, AL

NETWORK ADMINISTRATOR

Feb 2003 - May 2004

- Maintained department websites and over 400 servers/workstations.
- Supervised Beowulf supercomputing cluster

Hecklers Entertainment

Birmingham, AL

PHP AND PALM PILOT DEVELOPER

1999 - 2001

Notable Awards

- 2015 **ISIF.asia Fellow**, APNIC
- 2015 **OpenTechFund Emerging Technologies Senior Fellow**, The Tor Project
- 2014 **Data Science Fellow**, Insight DataScience
- 2010 **USA Patent #20100169177**, Method and System for Assessing Behavior of a Webpage Visitor
- 2010 **Demetriades-Tsafka-Kokkalis Prize in Entrepreneurship**, Caltech
- 2009 **Creativity Top 50**, Creativity Magazine
- 2009 **Computational Science Graduate Fellowship**, USA Dept. of Energy (4 years funding)
- 2009 **Interview: The Grill**, Computer World Magazine
- 2008 **Innovation in Journalism Award**, Knight-Batten Foundation (\$10,000)
- 2007 **Future Famous Alumni**, Indiana University
- 2007 **2007 Year in Ideas**, The New York Times
- 2007 **Graduate Fellowship**, USA Dept. Homeland Security (3 years funding)
- 2007 **Win Against Spin award**, Center for Media and Democracy

Research Experience

Santa Fe Institute

VISITING RESEARCHER

Santa Fe, NM

2005 - 2014

- Discovered mutational bounds for sustained machine self-reproduction.

Massachusetts Institute of Technology: Center for Collective Intelligence

VISITING FELLOW

Cambridge, MA

Winter 2013

- Quantified cooperation in neural networks and cooperate teams.

Harvard Law: Berkman Center for Internet and Society

INTERN

Cambridge, MA

Summer 2009

- Dissected Chinese censorship program “Green Dam Youth Escort.”

Stanford University: Dept. of Computer Science

HOMELAND SECURITY GRADUATE FELLOW

Stanford, CA

Summer 2008

- Analyzed Wikipedia edits to discover bad actors.

Keck Graduate Institute

RESEARCH ASSISTANT

Claremont, CA

Summer 2006

- Quantified what languages are suitable for genetic programming.

Indiana University: School of Informatics

RESEARCH ASSISTANT

Bloomington, IN

June 2004 - May 2007

- Quantified evolution of neural network complexity in the [Polyworld](#) artificial life simulator.

Writing

Complexity Theory 9 peer-reviewed papers: [arXiv link](#)

Computer Security 4 peer-reviewed papers: [Maiden Names](#), [Tor Analytics](#), [Freezing Bitcoin Assets](#), etc.

Artificial Life 2 peer-reviewed papers: [arXiv link](#)

Miscellaneous

Program Committees

[Hackers on Planet Earth](#) (2008, 2010, 2016)

[ACM AISeC](#) (2008, 2009, 2010)

[Artificial Life](#) (2012, 2013)

Fun Facts

- Erdős number: 3 (via [Jonathan Harel](#))
- Bacon number: 3 (via [Curtis Armstrong](#))
- Owner of IPv4-block [108.198.0.0–108.198.0.255](#).
- My complete DNA can be [downloaded](#) as part of the [data-set](#) for genetic corollaries for general intelligence.
- Estonian e-resident #38303060128
- The New York Times has dubbed me the “[Internet Man of Mystery](#)”