

- [OSCON](#)
- [Data](#)
- [Java](#)



[Join Attendee Network](#)



[Add to Your Schedule](#)

[Add Comment or Question](#)

0

Like

Share

Synthetic Biology and Data-Driven Synthetic Biology for Personalized Medicine and Clean Energy

[Russell Hanson](#) (RSI/Harvard/TCIN)

[1:30pm Tuesday, 07/26/2011](#)

[Data: Analytics and Visualization](#)

Location: C124

Tags: [data scientists](#), [synthetic biology](#)

Synthetic biology is a new field where basic biological components can be engineered to create something new. It often involves DNA synthesizers, ligation, promoters, and polymerase chain reaction—which may or may not be safe for your in silico environment. However, as the size and complexity of the systems increase, tools become more and more important, thus computer-aided design (CAD) for biology has emerged.

In this talk I will give the attendee some background on this emerging biological CAD field. Many of the tools are open source and easy to access. They also leverage interesting so-called design patterns in software and also in biology.

<http://www.clothocad.org>

<http://www.eugenecad.org>

People planning to attend this session also want to see:

- [Distributed Data Analysis with Hadoop and R](#)
- [Facebook Messages and HBase](#)
- [Design and Implementation of a Real-Time Cloud Analytics Platform](#)
- [Introduction to Hadoop](#)

Russell Hanson

RSI/Harvard/TCIN

Russell Hanson was born in Palo Alto, CA on May 2, 1981 and grew up in California and Bloomington, IN. From 1999—2003 he studied in Portland, Oregon at Reed College, completing a bachelor's degree in Physics. In 2005 he received an M.S. in Biology from Georgia Tech and his PhD studies were in Chemistry at Boston University. His research interests are varied and span machine learning and statistical learning, chemical engineering, biophysical and medicinal chemistry, cancer and cancer biology, quantitative finance, algorithmic trading and technology, synthetic biology and computational biology, quantum computation and information, natural language processing, and mathematical logic and recursion theory. Past academic appointments include Harvard, MIT, and the Technical University of Berlin. An entrepreneur and businessman, in 2008 he founded SciColab.com a collaborative website for scientists and researchers, co-founded LobeLink.com a web annotation and recommendation engine company, founded Reducible Systems, Inc a quantitative consulting company, and in 2009 co-founded TagHalo.com a word tag cloud-based information browsing/search system. He serves as Chairman of the Committee on Advanced Technology with the US national non-profit The Cure Is Now.

- [Web site](#)

Leave a Comment or Question

Help us make this conference the best it can be *for you*. Have questions you'd like this speaker to address? Suggestions for issues that deserve extra attention? Feedback that you'd like to share with the speaker and other attendees?

[Join the conversation here](#) (requires login)

Schedules

- [Master](#)
- [Data](#)
- [Java](#)
- [OSCON](#)
- [Personal schedule](#)

Other schedules

- [OSCON Schedule](#)
- [OSCON Data Schedule](#)
- [OSCON Java Schedule](#)

[Speakers](#) [Video](#) [Social](#)



Brisk NOW AVAILABLE
Radical Simplicity. Rock-Solid Reliability.
It's the simpler to deploy,
easier to use Hadoop.



O'REILLY

©2011, O'Reilly Media, Inc.

(800) 889-8969 or (707) 827-7019

Monday-Friday 7:30am-5pm PT

All trademarks and registered trademarks appearing on oreilly.com are the property of their respective owners.
conf-webmaster@oreilly.com

- **[OSCON: Data](#)**
- [2010 Photos](#)
- [2010 Video](#)
- [2010 Speaker Slides](#)
- [Diversity](#)
- [Sitemap](#)
- [Privacy Policy](#)

- **Stay Connected**
- [Contact Us](#)
- [OSCON Bulletin](#)
- [Twitter](#)
- [Identi.ca](#)
- [Facebook](#)
- [LinkedIn](#)

- **More O'Reilly Sites**
- [O'Reilly Conferences](#)
- [oreilly.com](#)
- [O'Reilly Radar](#)
- [O'Reilly Video](#)
- [O'Reilly Answers](#)
- [O'Reilly Webcasts](#)
- [School of Technology](#)
- [MAKE](#)