

Emily Scher

<http://scherscherscher.com>

scher.emily@gmail.com | +44 7472291272

EDUCATION

WINSTON CHURCHILL HIGH SCHOOL
Potomac, Maryland
August 2007 – June 2011

JOHNS HOPKINS UNIVERSITY | B.S. COMPUTER SCIENCE
Baltimore, Maryland
August 2011 – 2014

UNIVERSITY OF EDINBURGH | Ph.D. COMPUTATIONAL BIOLOGY
Edinburgh, United Kingdom
Supervised by Dr. Guido Sanguinetti
September 2015 – February 2020 (Expected)

WORK EXPERIENCE

AMAZON | SOFTWARE DEVELOPMENT ENGINEER
March 2015 – August 2015 | Edinburgh, Scotland

- Worked at the Amazon Development Centre in Edinburgh Scotland as a part of the Recommendations Team. Left to pursue a PhD.

GOOGLE | SOFTWARE ENGINEERING INTERN
June 2014 – August 2014 | San Francisco, CA

- Developed Android and Web applications for the Google Wallet team

UNIVERSITY OF EDINBURGH, CAI LAB | RESEARCH ASSISTANT
September 2013 – May 2014 | Edinburgh, Scotland

- Developed applications for the design and characterization of DNA sequences, and for the automation of DNA synthesis. This work was funded by Autodesk.

CISCO SYSTEMS | SOFTWARE ENGINEERING INTERN
June 2013 – August 2013 | San Jose, CA

- Developed feedback loop prevention and visualization software for radio systems.
- Developed a 'quick installer' for the IPICS product.

JHU, BOEKE AND BADER LABS | RESEARCH ASSISTANT
Jan 2013 – May 2013 | Baltimore, MD

- Developed a Ruby on Rails web application for use in the Boeke and Bader labs. This application included tools for sequence alignment against queries from the NCBI database, sequence visualization, and sequence export into multiple file formats.

JOHNS HOPKINS IGEM TEAM | SOFTWARE TEAM MEMBER

May 2012 – November 2012 | Baltimore, MD

- Part of a team of four which created a cloud-based tool for plasmid annotation and design (called Autogene), which was submitted to the 2012 iGEM competition in the software track, won Best Software in the World iGEM Competition.

NAVAL MEDICAL RESEARCH CENTER | INTERN

Summers 2010 - 2012 | Silver Spring, MD

- Used purely computational techniques to predict potential targets for a Shigella subunit vaccine.

NATIONAL INSTITUTE OF STANDARDS IN TECHNOLOGY | INTERN

Summer 2008 | Gaithersburg, MD

- Web Development and Java programming in support of an Arabic-to-English translation software project

FREELANCE WEB DESIGN

SKILLS

PROGRAMMING LANGUAGES

Java, C, C++, Python, Javascript, Perl, Ruby on Rails, Html, CSS, PHP

SOFTWARE

Git, Eclipse, Netbeans, VirtualBox, Android Studio, ClearCase, Photoshop, Illustrator, Flash, Microsoft Office

AWARDS

Best Software in 2012 iGem Competition
National Merit Finalist, September 2010
Dean's List
President's Volunteer Service Award

OTHER ACTIVITIES

Secretary of the Hopkins Undergraduate Bioethics Society
Model UN Dais Staff Member
Trial Team Member

PUBLICATIONS

Emily Scher, Yisha Luo, Aaron Berliner, Jackie Quinn, Carlos Olguin, Yizhi Cai, GenomeCarver: harvesting genetic parts from genomes to support biological design automation, 6th International Workshop on Bio-Design Automation, June 2014

Giovanni Stracquadanio, Kun Yang, Emily Scher, Joel S. Bader (2013). BioPartsApps: Design and Tracking Tools for Synthetic Biology. DARPA Clio Meeting. Atlanta, GA, USA. April 22-24, 2013.

Robert Gormley, Emily Scher, Malabi Venkatesan, Ryan Ranallo. Towards a Reverse-Vaccinology of the Shigella Pan-Genome. Keystone Symposia: Immunological Mechanisms of Vaccination, October 2010