

Benjamin L. Wicks

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EDUCATION

University of Nebraska at Omaha (graduated May 2014)

- Major in Bioinformatics with Minors in Chemistry & Computer Science
- 142 credit hours completed with cumulative 3.66 GPA

RELEVANT RECENT COURSEWORK

Biochemistry of Metabolism
Graph Theory

Bioinformatics Senior Project
Honors Medieval Literature

RESEARCH EXPERIENCE AND PRESENTATIONS

NE-INBRE Research Training Program (May 2012 – present)

- summer 2012: Researched KSR1-centric colorectal cancer therapy with Rob Lewis, Ph.D.
 - Learned and practiced standard laboratory protocol including Cell Culture, HTS preparation, and Western Blot creation, run, development, and interpretation
 - Utilized PHP, R, and Molegro software tools to simplify several lab procedures
- 2012 NE-INBRE Annual Conference: PowerPoint presentation about first summer work
- Following school years: Researched on two separate projects with Mark Pauley, Ph.D.
 - Analyzed the Denisovan Genome for human orthologs
 - Developed Python scripts to automatically update the UNO website of human genome parameters
- 2013 Nebraska Academy of Sciences Annual Meeting: PowerPoint presentation describing my work during the school year
- 2013 Central Region IDeA Conference: “Bioinformatic Analysis of the Denisovan Genome” Poster Presentation
- 2014 Nebraska Academy of Sciences Annual Meeting: “A Comparison of the Denisovan and Human Genomes for Integration of Bioinformatics Concepts into Lab Curriculum” PowerPoint Presentation

University Honors Program (August 2010 – May 2014)

- Senior Thesis Symposium Presentation: “Comparative Mitogenomics among Metazoan Species”

ADDITIONAL WORK EXPERIENCE

IS&T Attic at the Peter Kiewit Institute (July 2010 – May 2012) with Zac Fowler

- Pioneered mobile development team branch of the Attic
 - Java, XML, SQLite, PHP, MySQL
- Designed & developed mobile applications including Public Art Omaha and PKI Open House
- Created curriculum for and instructed mobile development training workshops

UNO Math Department: The Cell Collective (December 2011 – May 2012) with Tom Helikar, Ph.D.

- Implemented SBML-formatted model export for cell modeling web application
 - Java, HTML

PUBLICATIONS

- 1) Helikar T, Kowal B, McClenathan S, Bruckner M, Rowley T, Madrahimov A, **Wicks B**, Shrestha M, Limbu K, Rogers J. The Cell Collective: Toward an open and collaborative approach to systems biology. *BMC Systems Biology*. 6:96. 2012.
- 2) Chauiya C, Berenguier D, Keating S, Naldi A, van Iersel M, Rodriguez N, Drager A, Buchel F, Cokelaer T, Kowal B, **Wicks B**, Goncalves E, Dorier J, Page M, Monteiro P, von Kamp A, Xenarios I, de Jong H, Hucka M, Klamt S, Thieffry D, Le Novère N, Saez-Rodriguez J. SBML qualitative models: a model representation format and infrastructure to foster interactions between qualitative modeling formalisms and tools. *BMC Systems Biology*. 7:135. 2013.

MEDICAL VOLUNTEERING AND SHADOWING EXPERIENCE

Lakeside Alegent Health Teen Volunteer (2007 – 2009 – 200 hours) with Jill Reynolds

- Welcomed visitors, delivered packages, worked gift shop, baked and distributed cookies, cleaned wheelchairs

Job Shadowed at Integris Bass Baptist Health Center Heart and Vascular Institute (summer 2012) with John Schrader, M.D.

- Visited with several inpatients, interpreted EKGs and echos

UNMC Emergency Department Volunteer (2012 – 2013 – 60 hours) with Patty Ostronic

- Cleaned rooms between patients, aided in directing patients, transported patients to get X-ray, CT, or Ultrasound scans

COMMUNITY ENGAGEMENT AND DIVERSITY EXPERIENCE

Christ Community Church High School Missions Trips (2006-2009)

- Helped construct a home and taught bible curriculum to children in Jaurez, Mexico (2006)
- Aided in home reconstruction and community involvement meals and activities during Hurricane Katrina relief in Waveland, MS (2007)
- Taught English and bible curriculum to elementary students in San Salvador (2008)
- Inner-city Omaha volunteer work with various non-profit organizations (Urban Plunge 2009)

Compass Ministries (2009 – 2010 – 50 hours) with Jenny Berg

- Aided North Omaha elementary school students with schoolwork and taught bible stories

Midlands Latino Community Development Corporation (summer 2010 – 15 hours) with Zac Fowler

- Installed and configured a laptop computer lab

Christ Community Church High School Small Group Leader (fall 2010 – fall 2011) with Brad Mock

- Led a group of about 6 young men through bible curriculum once a week

Christ Community Church Online Campus Launch Team (fall 2011) with Robert Murphy

- Helped guide the birth of the church's online campus with a team of other volunteers

Christ Community Church 8:08 College Community Group Leader (2012 – 2013) with Jared Kliewer

- Led a group of about 15 peers through bible curriculum once a week

CityLight U College Small Group Leader (fall 2013 – summer 2014) with Andrew Rutten

- Led a group of about 10 peers through bible curriculum once a week

CityLight Church Kids Ministry Volunteer (fall 2013 – present) with Kelly Williams

- Cared for a group of about 10 early-elementary or pre-school children and guided them in lessons once every other week

HONORS AND AWARDS

University of Nebraska Regents' Scholarship

Walter Scott, Jr. Scholarship

UNO Honors Program with Thesis

INBRE Program Scholarship