

Katherine Erickson

katherineerickson.com

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Education

M.S. in Computer Science New York University, current, 4.0 GPA

B.A. Oberlin College, 2006, Biology and Cinema Studies majors, Chemistry minor, 3.88 GPA

- Highest Honors in Biology
- Phi Beta Kappa (2006) and Sigma Xi (2005)
- Merit Scholarships: John Oberlin, Robert B. and Sophia Whiteside, National Merit
- Biology Prizes: Leo S. Millar (2006), Hope Hibbard (2005), Florence Burger (2005-2006)

H.S. Diploma East High School, Duluth, MN, 2002, 4.0 GPA, Valedictorian (shared)

GRE 2011, Quantitative 800/800, Verbal 780/800, Analytical Writing 5.5/6

Employment

Assistant Research Scientist and Software Developer *Labs of Dr. Fabio Piano and Dr. Kris Gunsalus, Center for Genomics and Systems Biology, New York University (research: 2009-present; software: 2013-present)*

Designed databases and built web interfaces to store, present, and navigate data for various research projects. Developed and implemented tools for lab organization. Examples at katherineerickson.com.

Assisted on genome-scale screen using pairwise gene knockdowns to uncover genetic interactions in *Caenorhabditis elegans* early embryogenesis. Contributed to experiment design, organization, and analysis.

Client Service Coordinator *H&R Block, Washington, DC (2009)*

Processed tax returns, managed appointments, answered 6 phone lines, trained new employees, and responded to clients' questions and concerns. Earned tax preparation certificate (72 hours coursework).

Deli Manager and Cook *Sticky Fingers Bakery, Washington, DC (2007-2008)*

Managed deli production, developed recipes, ordered produce, and cooked at an all-vegan bakery.

Research Technician and Assistant *Lab of Dr. Taylor Allen, Oberlin College Biology Department (2005-2007)*

Mapped and characterized suppressor mutations to reveal interactions within and between muscle proteins in *C. elegans*. Wrote honors thesis about the project, and presented findings at international scientific meetings.

Recruited and advised participants for study about oxygen consumption fluctuation over the menstrual cycle.

Prior Job Experience Support Staff at home for women with schizophrenia. Dietary Aide and dishwasher at assisted living home. Many years of early morning newspaper delivery.

Programming

Skills Python, Django, MySQL, database design, C, Java, L^AT_EX, git, HTML, CSS (all experience in OS X or UNIX)

Dabbings jQuery (JavaScript), R, ML, PHP-based web development

Web Development Please see portfolio at katherineerickson.com, code at github.com/katur.

Coursework Master's-level NYU courses taken:

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|-----------------------------|--------------------------|---------------------------------|
| • Advanced Database Systems | • Database Systems | • Applied Genomics |
| • Programming Languages | • Fundamental Algorithms | • PACII (Computer Organization) |
| • Operating Systems | • Discrete Math | • PACI (Java, Data Structures) |

Other Experiences

Bicycle Touring Organized and conducted tours from Portland to San Francisco (2011, 13 days), coast-to-coast across the Southern United States (2008, 49 days), along the Mississippi River (2007, 25 days), and circum-navigating Lake Superior (2003, 14 days).

Steel Drums *NY Pan Sonatas (2007-2011) and Oberlin Steel (2003-2007)*

Competed with 100-member, Brooklyn-based steel drum band in annual NYC Panorama competition (3 wins). Played and toured with Oberlin's student-run steel drum band. Taught and organized a steel drum course for college and high school students in Oberlin's Experimental College Program.

Food Coops and Community Gardens *Park Slope Food Coop (2010-present), Fort Totten DC Community Garden (2008-2009), Oberlin Student Cooperative Organization (2002-2006)*

Notable experiences in the Oberlin coops: Discussion and Communications Coordinator (mediating large-group discussions and running management team meetings); treasurer; bread baker; pizza maker; four years in the notorious vegan, no-sugar, at-least-half-whole-wheat coop.

Publications, Abstracts, Presentations

- White AG, Lees B, Kao HL, Cipriani PG, Munarriz E, Paaby A, Erickson K, Guzman S, Rattanakorn K, Sontag E, Geiger D, Gunsalus KC, Piano F. DevStaR: High-throughput quantification of *C. elegans* developmental stages, IEEE TMI, 2013.
- 16th International *C. elegans* Meeting, UCLA, June 2007. Abstract/Poster: "Reversion Analysis with *unc-54* and *unc-90* Mutants Reveals Paths of Communication within Myosin and within Its Regulatory System."
- 51st Annual Biophysical Society Meeting, Baltimore, March 2007. Abstract/Poster: "Communication within Myosin and between It and Troponin."
- Undergraduate Honors Thesis and Presentation: "Interactions Made by Myosin and by Troponin-T: Genetic Suppressor Analysis," 2006.
- 50th Annual Biophysical Society Meeting, Salt Lake City, March 2006. Abstract/Poster: "Interactions Made by Myosin and by Troponin-T: Genetic Suppressor Analysis."
- 15th International *C. elegans* Meeting, UCLA, June 2005. Abstracts/Posters: "Novel Domains of the Muscle Regulatory Protein Troponin-T and Their Roles" and "Design and Efficacy of Two Investigative, Physiological Projects Using *C. elegans*."