

# 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](http://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, HTML, CSS, L<sup>A</sup>T<sub>E</sub>X, git (all experience in OS X or Linux)

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

**Web Development** Please see portfolio at [katherineerickson.com](http://katherineerickson.com), code at [github.com/katur](https://github.com/katur).

**Coursework** Master's-level NYU courses taken:

- |                             |                          |                                 |
|-----------------------------|--------------------------|---------------------------------|
| • 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*."