

## Education

M.Ed., Curriculum and Instruction | University of Illinois | Champaign, IL 2002  
B.S., Ecology, Ethology, and Evolution | University of Illinois | Champaign, IL 1998

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## Professional Experience

**Director of Curriculum Development CT-STEM Project** | [Northwestern University](http://www.northwestern.edu) | Evanston, IL, USA 2016 – 2019

- Co-Developed and coached implementation of multiple science units with 16 teachers across 3 high schools incorporating computational thinking practices
- Managed the design, development, and administration of [CT-STEM](#) interactive e-learning website with over 200 teachers registered
- Managed 10-12-person curriculum team consisting of graduate and undergraduate students
- Assisted in the design and implementation of multiple professional developments for partner teachers
- Designed and implemented summer research experience for 4 teachers over 2 consecutive summer workshops
- Member of [CCL Lab](#), [TIDAL Lab](#), and [CT-STEM Project](#) and CT-STEM 5 person steering committee
- Presented at Computational Thinking workshop at 2016 NSTA Conference in Nashville

**Science Teacher** | [International School of Panama](#) | Panama City, Panama 2013 - 2015

- Taught Biology, Physics, and IB Environmental Systems and Societies for grades 9-12
- Utilized Canvas, Google sites, and other technologies to facilitate interaction with students

**Science Teacher** | [Uruguayan American School](#) | Montevideo, Uruguay 2011 - 2013

- Taught General Science, Life Science, Physical Science, Biology, and AP Biology for grades 6-12
- Utilized PowerSchool, Google sites, and other technologies to differentiate instruction

**IB MYP Curriculum Coordinator** | [The Codrington School](#), | Barbados 2010 – 2011

- Assisted and trained teachers on administration of IB Middle Years Program curriculum
- Served as teacher mentor for new/inexperienced teachers
- Involved in the integration of Moodle, ManageBac, Wikis, and other digital tools in instruction

**Science Teacher** | [The Codrington School](#) | Barbados 2008 – 2011

- Taught Technology, Integrated Science (Biology, Chemistry, Physics), and IB Diploma Biology
- Developed curriculum for all secondary school sciences and implemented annual secondary school science fair

**Area Science Instructional Specialist** | Chicago Public Schools | Chicago, IL 2007 – 2008

- Served as instructional coach to over 30 new and freshman level teachers at over 20 public high schools
- Planned and implemented professional development for over a 100 teachers and administrators in curriculum planning, data analysis, technology integration, literacy, and school improvement

**Science Teacher** | Hyde Park Academy | Chicago Public Schools | Chicago, IL 2004 – 2007

- Served as Head of Science Department and IB MYP Personal Project Manager for a school of 2000 students
- Taught Biology, Environmental Science, IB MYP Chemistry

**Biology Teacher** | York Alternative HS | Chicago Public Schools | Chicago, IL 2002 - 2004

- Taught and mentored student inmates located within the Cook County Department of Corrections
- Taught in after-school programs: Evening High School, General Education certification, Adult Literacy, and Computer classes to both student and adult inmates

**Technology Consultant** | Stratton Elementary | Champaign, Illinois 2001-2002

- Served as troubleshooter for technology and computer related equipment
- Instructed teachers in the usage and maintenance of educational technology

<b>Graduate Teaching Assistant   University of Illinois, College of Education   Champaign, IL</b>	<b>2001-2002</b>
<ul style="list-style-type: none"> <li>Taught classes of technology integration in education to pre-service teachers</li> <li>Instructed pre-service teachers in the development of a website and online portfolio</li> </ul>	
<b>Department Webmaster   University of Illinois, College of Education   Champaign, IL</b>	<b>1999-2002</b>
<ul style="list-style-type: none"> <li>Rebuilt departmental website and integrated it into the college intranet</li> <li>Built and maintained websites for professors within the department</li> </ul>	
<b>Research Biologist   University of Illinois Cancer Center   Chicago, Illinois</b>	<b>1998-1999</b>
<ul style="list-style-type: none"> <li>Conducted scientific research using current techniques in cancer biology</li> <li>Worked on the formation of a human tumor bank and procurement facility</li> </ul>	

## Certification

<b>Illinois Secondary Teaching Certification</b>	<b>2002</b>
<ul style="list-style-type: none"> <li>HS (9-12) Biology, Botany, Chemistry, General Science, Physics, and Zoology</li> <li>MG (6-8) Biological Science, General Science, Language Arts, and Physical Science</li> </ul>	

## Courses and Training

IB Diploma (Science)   Montezuma, New Mexico	<b>2004</b>
IB MYP Summer Institute (Science)   Chicago, Illinois	<b>2005</b>
IB MYP Level II (Science)   Norfolk, Virginia	<b>2005</b>
IB MYP Level III (Science)   Montreal, Canada	<b>2005</b>
IB Diploma Level II (Biology)   Berlin, Germany	<b>2010</b>
IB Diploma Level III (Biology)   online course	<b>2012</b>
AP Biology Inquiry Labs   online course	<b>2012</b>
IB Diploma Level II (Environmental Systems and Societies)   Montezuma, New Mexico	<b>2013</b>
Powerful Tools for Teaching and Learning: Web 2.0 Tools   online course	<b>2014</b>
Differentiation: A strategy for all students   online course	<b>2015</b>
Design of Technological Tools for Thinking and Learning (LS 426)   Northwestern University	<b>2016</b>
Annual Educational Coaching Conference   Northwestern University	<b>2016</b>
Google Classroom   online course	<b>2017</b>
e-Learning Ecologies: Innovative Approaches to Teaching and Learning for the Digital Age   online course	<b>2018</b>
The Ultimate Guide to Game Development with Unity   online course	<b>2018</b>
Build Responsive Real-World Websites with HTML5 and CSS3  Udemy online course	<b>2019</b>
The Complete 2019 Web Development Bootcamp   Udemy online course	<b>2019</b>
Automate the Boring Stuff with Python Programming   Udemy online course	<b>2019</b>
JavaScript Essentials   Udemy online course	<b>2019</b>
Python Basics for Data Science   EdX online course	<b>2019</b>

## Publications

- Arastoopour Irgens, G., Dabholkar, S., Bain, C., Woods, P., Hall, K., Swanson, H., Horn, M., & Wilensky, U. (in review). Modeling and Measuring Students' Computational Thinking Practices in Science. Journal of Science Education and Technology
- Swanson, H., Arastoopour Irgens, G., Bain, C., Hall, K., Woods, P., Rogge, C., Horn, M., Wilensky, U. (2018). [Characterizing Computational Thinking in High School Science](#). In Kay, J. & Luckin, R. (Eds.), Rethinking Learning in the Digital Age. Making the Learning Sciences Count: Proceedings of the 13th International Conference of the Learning Sciences Vol. 2, 871-878

## Technical Skills

- OS:** Mac iOS, Windows, Android/Chrome, Ubuntu
- Software:** HTML5, CSS3, Bootstrap 4, JavaScript, NetLogo, Git, Office, Visual Studio, Virtual Box, Google Classroom, Canvas, Moodle, Scratch, Unity, Video/Audio editing, e-learning tools
- Hardware:** Build and repair of computers, Virtual Reality (Oculus), Raspberry Pi