

EMILY HASTINGS

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EDUCATION

University of Illinois, Urbana-Champaign, IL

Ph.D. in Computer Science (in progress, expected graduation 2022) **2016-Present**

M.S. in Computer Science **2016-2019**

Specialization: Human-Computer Interaction

Advisor: Brian Bailey

Research Interests: team formation, crowdsourcing,
algorithm awareness, CS education

Courses included: user interface design, human-computer
interaction, experimental methods, educational technology,
social media and signals, models of cognitive processes,
data mining, educational game design

Knox College, Galesburg, IL

B.A. in Computer Science, *summa cum laude* **2012-2016**

Independent Minor: Renaissance and Medieval Studies

Courses included: data structures, hardware organization,
information management, algorithm design, graphics, parallel
programming, software engineering, networking, operating
systems, artificial intelligence

RESEARCH EXPERIENCE

Current Projects:

National Institute of Standards and Technology, Gaithersburg, MD

Guest Researcher/GMSE Fellow

Summer 2018 – Present

Advisors: Michael Brundage, Thurston Sexton

Working with Knowledge Extraction Application team in
Engineering Laboratory toward quantifying human skill level from
historical data.

University of Illinois, Urbana-Champaign, IL

Research Assistant

Fall 2016 – Present

Advisor: Brian Bailey

Working individually and with a team to investigate issues
concerning the use of algorithmic team formation tools.

Previous Projects:

University of Illinois, Urbana-Champaign, IL

Beyond the Black Box Research Team Member**2018 – 2019**

Advisors: Karrie Karahalios (UIUC), Christian Sandvig (UMich)

Worked with a team across multiple universities to conduct a large-scale study on algorithmic literacy and awareness.

Knox College, Galesburg, IL

Research Assistant**Summer 2015**

Advisor: Jaime Spacco

Worked with a team to develop Knoxcraft

(<https://github.com/knoxcraft>), a system that allows students to use

Java/Python code to build structures in the game Minecraft.

Knox College, Galesburg, IL

Research Assistant**Summer 2014**

Advisor: David Bunde

Worked with a team to develop materials to help teach parallel programming at Knox and other institutions.

Knox College, Galesburg, IL

Research Assistant**Summer 2013**

Advisor: David Bunde

Worked with a team to investigate task mapping and cabling methods for the Dragonfly interconnect topology.

TEACHING EXPERIENCE

Knox College

Teaching Assistant for “Introduction to Computer Science” and “Program Design and Methodology”**2014-2016**

Assisted professors during lab sessions, graded homework, lab assignments, and quizzes, and held office hours.

Teaching Assistant in the Costume Shop**2013-2014**

Built garments for college theatrical shows, mentored students on individual projects, and presented costume research to classes.

PUBLICATIONS AND PAPERS

Emily M. Hastings, Farnaz Jahanbakhsh, Karrie Karahalios, Darko Marinov, and Brian P. Bailey. 2018. Structure or Nurture? The Effects of Team-Building Activities and Team Composition on Team Outcomes. *Proc. ACM Hum.-Comput. Interact.* 2, CSCW, Article 68 (November 2018), 21 pages. <https://doi.org/10.1145/3274337>

E. Hastings, D. Rincon-Cruz, M. Spehlmann, S. Meyers, A. Xu, D. P. Bunde, and V. J. Leung, “Comparing global link arrangements for dragonfly networks,” in *2015 IEEE International Conference on Cluster Computing*, Sept 2015, pp. 361–370.

PRESENTATIONS AND POSTERS

<i>Structure or Nurture? The Effects of Team-Building Activities and Team Composition on Team Outcomes</i>	
ACM Conference on Computer-Supported Cooperative Work	2018
<i>The History and Construction of Elizabethan English Costume</i>	
Knox College Presentation of Independent Study Research	2016
<i>Knocrraft: Teaching Introductory Programming with Minecraft</i> (poster)	
Knox College Horizons Celebration of Student Research	2016
<i>Knocrraft: Teaching Introductory Programming with Minecraft</i>	
Knox College Summer Science Seminar Series	2015
<i>Adventures in Parallel Programming</i> (poster)	
Knox College Horizons Celebration of Student Research	2015
<i>Adventures in Parallel Programming</i> (Best Student Seminar Award)	
Knox College Summer Science Seminar Series	2014
<i>The History and Construction of Elizabethan English Costume</i> (poster)	
Knox College Horizons Celebration of Student Research	2014
<i>Dragonfly Interconnect Topology</i> (poster)	
Knox College Horizons Celebration of Student Research	2014
<i>Dragonfly Interconnect Topology</i>	
Knox College Summer Science Seminar Series	2013

AWARDS

Graduate Measurement Science and Engineering Fellowship, <i>NIST/NPSC</i>	2018-Present
Phi Beta Kappa, <i>Knox College</i>	2016
E. Inman Fox Prize, <i>Knox College</i>	2016
Paul’s Prize in Computer Science, <i>Knox College</i>	2016
Howard A. Wilson Prize in Literary Criticism (2nd Place), <i>Knox College</i>	2016
ASSET Scholar, <i>Knox College</i>	2015-2016
Ron Asplund Memorial Research Award, <i>Knox College</i>	2014
National Merit Scholar, <i>Knox College</i>	2012-2016

SKILLS

Microsoft Office, Google App Suite, Windows, Eclipse, Github

Programming languages (high proficiency): Java

Programming languages (some experience): Python, C, SQL, HTML/CSS, Javascript/JQuery, PHP, Android development

Knowledge of research methodologies

Knowledge of statistical analysis techniques, R

Writing and presenting reports

English (native language)

Elementary proficiency in French and Latin

VOLUNTEER EXPERIENCE

University of Illinois

Girls Who Code Facilitator

2017

Assisting students during weekly club meetings.

Engineers Volunteering in STEM Education (ENVISION)

2016-2017

Leading school age children in STEM-related activities.

Knox College

Teaching Assistant for Knox College 4 Kids

2011-2013

Assisted teachers for three summers teaching knitting, crochet, weaving, French, and Harry Potter classes to school-age children.

MEMBERSHIPS

Student member of the Association for Computing Machinery (ACM)

Student member of ACM Special Interest Group on Human-Computer Interaction

Phi Beta Kappa Honor Society