

Brittany Ann Kos PhD

Research, Education, Development

Curriculum Vitae

Experienced and self-motivated coordinator and researcher. History of working in outreach and education, with a strong focus on diversity and inclusion work. Knowledgeable of social science and data science, program evaluation and development, research standards and practices. Looking for opportunities to extend knowledge base in research and management and apply skills in broader fields.

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Work History

- 2015 - 2019 Lead Coordinator**
T9Hacks: A Women and Non-Binary Hackathon
- 2015 - 2019 Graduate Researcher**
University of Colorado Boulder
Advised under Lecia Barker, PhD
- 2018 - 2018 i3 Teaching Fellow**
iSchool Inclusion Institute (i3)
University of Pittsburgh
- 2014 - 2018 Instructor/Teaching Assistant (TA)**
ATLAS Institute
Department of Computer Science
Department of Information Science
University of Colorado Boulder
- 2013 - 2015 Graduate Research Fellow (NSF)**
ECSITE Project: Engaging Computer Science in Traditional Education
- 2012 - 2013 User Experience (UX) Intern**
ZOLL Medical
- 2010 - 2012 Web Developer Intern**
College of Arts & Sciences IT Department
- 2010 - 2011 Front-End Web Developer Intern**
JILA IT Department

Education

- 2019 Ph.D. Technology, Media & Society**
Thesis: An Autoethnography of T9Hacks: Designing a Welcoming Hackathon for Women and Non-Binary Students to Learn and Explore Computing
- 2014 M.S. Computer Science**
- 2012 B.S. Computer Science**
Emphasis: User Experience (UX/UI)
Minor: Technology, Arts & Media
University of Colorado Boulder

Skills

Interpersonal Skills

Professional communication
Able to work autonomously and collaboratively
Organized, detail-oriented, fast learner

Software

SPSS
Google Suite,
Microsoft, Adobe
Slack, Basecamp

Programming Languages, Frameworks, etc

Git, Jekyll, Wordpress
HTML, CSS, JS, PHP
Python, R, SQL
Java, Swift, C#

Quick Links

[Coordinator Experience ↴](#)

[Research Experience ↴](#)

[Instructional Experience ↴](#)

[UX Experience ↴](#)

Coordinator Experience

2015 - 2019 Lead Coordinator

T9Hacks: A Women and Non-Binary Hackathon

Founded [T9Hacks](#), a student hackathon organization dedicated to providing events for women and non-binary students to learn and explore computing. Worked as head of logistical coordination for 100+ participants and 50+ volunteers at three annual events

- Developed technical and professional development workshops, event programming, and hands-on, supportive, and project-based learning experience for students
- Worked to improve participant recruitment and retention
- Secured corporate sponsorships and community partnerships
- Created organizational structure, positions, responsibilities, and workflows
- Post-event evaluation

Press for T9Hacks

- [T9 Hacks gathers women, non-binary people at CU Boulder for 24-hour hackathon](#)
- [Community Roundup: Hackathons Empowering Safety, Security, and Diversity](#)
- [T9Hacks continues to grow and thrive](#)
- [Female-focused, collaborative hackathon session slated for Feb. 10](#)
- [CU-Boulder's Atlas Institute hosts inaugural women-centric hack-a-thon](#)
- [T9Hacks brings women together for 24 hours of hacking](#)
- [T9 Hacks Highlights](#)
- [T9Hacks: Supporting Diversity in Tech](#)
- [CU ATLAS T9Hacks: Bridging the Gap Between Women & Tech](#)

2013 - 2015 Board Member, Evaluation Lead

Earth Explorers

Earth Explorers is an independent nonprofit that partners with local schools and research institutions to provide Science, Technology, Engineering and Math (STEM) curriculum with education in filmmaking to spark a lifelong interest in STEM topics.

Research Experience

- Worked on multiple qualitative research projects with increasing amounts of autonomy and ownership over the projects
- Experience publishing results, writing reports and IRB protocols
- Latest CITI Certification: 2018-01-10
- Interviews, focus groups, ethnographic observation; surveys, questionnaires, assessments
- Developed and improved data collector and data manager processes
- Analyzed qualitative data, statistical analysis of quantitative data

Primary Investigator (PI)

2016 - 2019 Student Hackathons

Investigated student experiences at students hackathons, project-building marathons. Explored areas such as competition, learning experiences, event branding, motivations and goals, and student experiences.

- Designed and ran interdisciplinary, hands-on, informal learning environment
- Mix-methods study involving ethnographic observation, feedback questionnaires, construct

surveys, informal and structured interviews

- Analyzed qualitative data, statistical analysis of quantitative data
- Conducted research on event design and program evaluation

Kos, Brittany Ann. "[An Autoethnography of T9Hacks: 'Designing a Welcoming Hackathon for Women and Non-Binary Students to Learn and Explore Computing.'](#)" University of Colorado Boulder. Dissertation. 2019.

Kos, Brittany Ann. "[Understanding Female-Focused Hackathon Participants' Collaboration Styles and Event Goals.](#)" *ICGJ 2019: Proceedings of the International Conference on Game Jams, Hackathons and Game Creation Events*, 2019.

Kos, Brittany Ann. "[The Collegiate Hackathon Experience.](#)" *ICER '18: Proceedings of the fourteenth annual International Conference on International Computing Education Research*, 2018.

Kos, Brittany Ann. "[The Unique Hackathon Experience.](#)" University of Colorado Boulder. 2016.

Kos, Brittany Ann. "[Framing the Gender Diversity Conversation at Student Hackathons And Some Organizational Tips.](#)" *Code Like a Girl*, 2017.

2017 - 2017 Prompting Computational Thinking

Investigated how untrained students could help each other learn to think computationally in introductory information science classes

- Developed and intervention that prompted and guided students through questions that were designed to help them solve programming problems
- Conducted focus groups with students to gain feedback
- Iterated on intervention for future implementation

Kos, Brittany Ann. "[The Collaborative Learning Framework: Scaffolding for Untrained Peer-to-Peer Collaboration.](#)" University of Colorado Boulder. 2017.

Lead Researcher

2016 - 2016 Grading at Scale

Developed unique grading practices for small team to manage coursework of a 700-student Introduction to Engineering Class.

- Managed core team of 3 and temporary team of 15+ graduate students
- Administered pre/mid/post assessments

Kos, Brittany Ann and Sarah Miller. "[Grade-a-thons and Divide-and-Conquer: Effective Assessment at Scale.](#)" *ASEE '17: American Society of Engineering Education 124th Annual Conference & Exposition*, 2017.

Fellowships

2015 - 2016 Center for STEM Learning Fellow

Various initiatives that explored: student experiences between three STEM majors; training undergraduate learning assistants (LA); and discourse within introductory classes

- Administered questionnaires and surveys; conducted ethnographic observation
- Assisted in conducting training of 15+ student workers

Committee Member: TAM BA College Exploration Committee

Kos, Brittany Ann. "[Computer Science is 'Hard': Looking at the Gap Between Two Computing Programs.](#)" *ICER '15: Proceedings of the eleventh annual International Conference on International Computing Education Research*. Poster and Lightning Talk. 2015.

Kos, Brittany Ann. "[Becoming a 'Good Programmer'.](#)" University of Colorado Boulder. 2015.

2013 - 2015 Graduate Research Fellow (NSF)

The ECSITE Project: Engaging Computer Science in Traditional Education

This NSF GK-12 project incorporated computing into existing K-12 courses by working with local school districts to develop standards-based curriculum appropriate for each school.

- Collaborated with middle school science teacher to developed a 3-week long infographic-based career exploration workshop for ~200 8th grade students
- Developed interdisciplinary science/technology curricula and content to teach computing topics in traditional science setting

Kos, Brittany Ann. "[Computational Thinking for Middle School: A Case Study of an 8th Grade Multimedia Outreach Project](#)." Brittany Ann Kos. University of Colorado Boulder. 2015.

Kos, Brittany Ann and Elizabeth Sims. "[STEM Careers Infographic Project \(SCIP\): Teaching Media-Based Computational Thinking Practices](#)." *SIGCSE '15: Proceedings of the 46th ACM Technical Symposium on Computer Science Education*, 2015.

Kos, Brittany Ann and Elizabeth Sims. "[Infographics: The New 5-Paragraph Essay](#)." *RMCWiC '14: 2014 Rocky Mountain Celebration of Women in Computing*, 2014.

Research Assistant

2016 - 2017

Extension Services (NCWIT)

The National Center for Women in Information Technology (NCWIT) Extension Services Project seeks to increase recruitment and retention of women in computing and technology undergraduate programs. Worked as a graduate data analyst/social scientist.

- Developed qualitative coding scheme for report data
- Analyzed qualitative data, statistical analysis of quantitative data

2015 - 2016

Laboratory for Playful Computation

Worked as data manager assistant and study facilitator. Interdisciplinary study, teaching middle school students computational thinking concepts through maker technology.

- Multi-week study across two sites; video, voice, observational data collection
- Conducted assessment interviews

2014 - 2014

Gamification of CS Principles

Assisted in implementing gamified intervention to introductory Computer Science Principles course.

Behnke, Kara A., Brittany Ann Kos, and John Bennett. "[Computer Science Principles: Impacting Student Motivation & Learning Within and Beyond the Classroom](#)." *ICER '16 Proceedings of the 2016 ACM Conference on International Computing Education Research*, 2016.

2010 - 2011

Mapping Experiences

Linear modeling research project. Assisted in analysis and reporting of results.

Link, Benjamin V., Brittany Ann Kos, Tor D. Wager, and Michael Mozer. "[Past Experience Influences Judgment of Pain: Prediction of Sequential Dependencies](#)." *Proceedings of the 33d Annual Conference of the Cognitive Science Society*, 2011.

Instructional Experience

Taught a variety of introductory STEM classes

- Taught and developed curriculum as the primary instructor, created assessments and evaluation
- Managed small teaching teams, managed weekly responsibilities with team of learning assistants
- Worked with other educators to standardize curriculum

Student Assessments/Feedback
5.0 / 6 Course intellectual challenge
5.0 / 6 Effectively encourages interest
5.4 / 6 Overall instructor score

Fellowship

Summer 2018 i3 Teaching Fellow

iSchool Inclusion Institute (i3), University of Pittsburgh

The iSchool Inclusion Institute (i3) is an undergraduate research and leadership development program that prepares students from underrepresented populations for graduate study and careers in the information sciences.

Worked with fellowship team and program leadership to develop targeted curriculum.

[Syllabus](#)

Instructor/Teaching Assistant (TA)

Fall 2018 Computational Reasoning 1 (INFO 1201)

[Syllabus](#)

Teaching Assistant; collaborated with team of TAs

Summer 2018 Computational Reasoning 1 (INFO 1201)

[Syllabus](#)

Instructor

Fall 2016 Introduction to Engineering (COEN 1500)

[Syllabus](#)

Teaching Assistant/Lead TA; managed team of LAs and graders

Spring 2016 Code (ATLS 1300)

[Syllabus](#)

Instructor

Spring 2016 Special Topics: Computer Science Education (CSCI 4830)

[Syllabus](#)

Teaching Assistant

Fall 2015 Code (ATLS 1300)

[Syllabus](#)

Instructor

Summer 2015 Computer Science 2: Data Structures (CSCI 2270)

[Syllabus](#)

Instructor; managed TA

Spring 2015 Digital Media 2 (ATLS 3020)

[Syllabus](#)

Instructor

Fall 2014 Introduction to Computer Science Principles (ATLS 1220)

[Syllabus](#)

Teaching Assistant

Spring 2014 Meaning of Information Technology (ATLS 2000)

[Syllabus](#)

Teaching Assistant; collaborated with team of TAs

Workshops, Summer Programs, etc

Summer 2015 Summer SuperSTEM

Summer SuperSTEM is a summer program hosted by the Innovation Center, a makerspace for the students in St. Vrain Valley School District. Taught a variety of summer programming introducing students into computing principles and topics.

Summer 2014 Digital CUrrents

Digital CUrrents (also ATLAS-Campos EPC Summer STEM Program) is a three-week technology intensive summer workshop for high school students who are largely from underrepresented minority groups. Students learn to use software applications and gain programming skills to create and manipulate digital content and complete a final project that showcases their creative and technical talents. Workshop participants also visit with guest speakers about career opportunities in technology-related fields and enjoy field trips to local technology-focused businesses.

Summer 2015
Summer 2014
Summer 2013

Science Discovery Summer Camp

CU Science Discovery offers a variety of hands-on STEM (science, technology, engineering, and math) camps for kids ages 5-18. Science Discovery offers intensive 1-3 week summer for high school students. Workshops provide unique opportunities for older students to work in CU laboratories, interact with CU scientists, and explore STEM careers

UX Experience

2012 - 2013

User Experience (UX) Intern

ZOLL Medical

ZOLL develops emergency service software for EMS agencies and medical companies

- Worked on migrating a legacy product to a web app
- Assisted in re-designing and implementing new front-end user-interface
- Worked well as a team player, assisting various development teams
- Worked on scrum team; managed projects through its entire iterations

2010 - 2012

Web Developer Intern

College of Arts & Sciences IT Department

In-house IT department that built web apps for administration, faculty, and student body.

- Responsible for the design and full-stack implementation of new features into legacy software, updated design, improved usability

2010 - 2011

Web Developer Intern

JILA IT Department

Assisted in transferring legacy website to new wordpress site; updated design, improved usability