Brittany Ann Kos
Curriculum Vitae

BrittanyAnnKos.com
Brittany.Kos@colorado.edu
720-270-5003

Education

May 2020 (expected)	Ph.D. Technology, Media, and Society ATLAS Institute — University of Colorado Boulder
May 2014	M.S. Computer Science College of Engineering and Applied Sciences - University of Colorado Boulder Emphasis in Human-Centered Computing
May 2012	B.S. Computer Science College of Engineering and Applied Sciences - University of Colorado Boulder Emphasis in Human-Centered Computing Minor in Technology, Arts and Media

Research Support

2016 — Current	Research Assistant *Advised under Lecia Barker* Working as a social science researcher with the National Center for Women in Information Technology (NCWIT) on their Extension Services project, which seeks to increase recruitment and retention of women in computing and technology undergraduate programs. Lead and conducted research projects on student collaboration and student experiences at collegiate hackathons.
2015 — 2016	Chancellor's Graduate Award for Excellence in STEM Education *Computer Science is "Hard": Uncovering Cultural Identities Within Introductory Computing Courses* This study investigated how cultural norms permeate introductory computing courses and recognize how students adopt or reject these identities in their academic careers
2013 — 2015	National Science Foundation: Graduate Research GK12 Fellow *Graduate Research Fellowship Award Number: 0841423* *The ECSITE Project: Engaging Computer Science in Traditional Education* This project incorporated computing into existing K-12 courses by working with local school districts to develop standard-based curriculum appropriate for each individual school.

Research Projects

2015 — Current	T9Hacks *Founder, Lead Coordinator* T9Hacks is a women's hackathon promoting gender diversity in creative technology. The hackathon creates opportunity for women to explore new technologies, solve real world problems, and create something amazing with a team.
2016	BlockyTalky *Data Manager* BlockyTalky is a research and outreach project lead by Ben Shapiro in the Laboratory for Playful Computation. BlockyTalky teaches students to create interactive, networked physical computing devices by using the BlockyTalky software which is built on Scratch and utilizes Raspberry Pi's.

Teaching Experience

Instructor

Spring 2016 Fall 2015	ATLS 2519: Special Topics in TAM: Code Introduces students to fundamental programming concepts and methodologies and apply them to creative projects. Students will learn to use code as a creative and artistic tool, and to utilize programming to find, define and solve problems in innovative ways.
Summer 2015	CSCI 2270: Data Structures Studies data abstractions (e.g., stacks, queues, lists, trees) and their representation techniques (e.g., linking, arrays). Introduces concepts used in algorithm design and analysis including criteria for selecting data structures to fit their applications.
Spring 2015	ATLS 3020: Digital Media 2 A continuation of Digital Media 1 (ATLS 3010), this course introduces students to advanced digital media development including interactive programming, scripting, and database functionality. Emphasizes a historical and conceptual understanding of programming and computational theories.

Teaching Assistant

Fall 2016	COEN 1500: Introduction to Engineering Provides an introduction to the engineering profession, including an examination of current discipline specializations and a focus on career paths for those trained in engineering. Provides sufficient knowledge of the engineering disciplines necessary to make an informed major choice.
Spring 2016	CSCI 4830: Special Topics: Computer Science Education The computer science department is offering a 1-credit hour special topics course this semester on computer science education. If you are interested in teaching computer science or becoming involved in the computer science department as an undergraduate learning assistant (CA, PLA, or TA) this is the class for you. In this course, we will cover presentation techniques, how to lead a discussion session, assessment, dealing with difficult colleagues, and teaching styles. The class will be

taught primarily through discussion and all students will have the opportunity to present and receive feedback in a friendly environment.

Fall 2014   ATLS 1220: Introduction to Computer Science
Introduces the fundamental principles of computer science using an online virtual world called Second Life as the "Laboratory" for the course. Students will learn how to program by creating objects of interest in Second Life. In-class and in-world discussions and readings will introduce the student to important ideas and concepts that shape the field of computer science.

Spring 2014   ATLS 2000: The Meaning of Information Technology
Surveys the history of information technologies and modern techniques of information production, storage, transmission, and retrieval. Emphasizes understanding not only the technological transformations in interpersonal, organizational, and mass communication, but also the technological, social and political changes that underlie the movement toward a digital society.

Workshops

Summer 2015   Summer SuperSTEM
Summer SuperSTEM is a summer program hosted by the Innovation Center, a maker space for the students in St. Vrain Valley School District.

Summer SuperSTEM: 3-D Printing Toy Design (intermediate level/grades 3-5)
Learn about the craft of toy design and manufacturing through 3-D printing. You'll learn how to make 3-D designs in print and with Google Sketch-up, then print original toy designs on a 3-D printer. What you design and make is limited only by your imagination!

Summer SuperSTEM: Python Level 1 (high school level)
Learn the basics of Python, a common and accessible programming language. If you are new to programming, this is a great class for you.

Summer 2014   ATLAS-Campos EPC Summer STEM Program (formerly Digital CUrrents)
The 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   Science Discovery Summer Camp
Summer 2014   CU Science Discovery offers a variety of hands-on STEM (science, technology,
Summer 2013   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.

Publications

Jun 2017	ASEE '17 — Full Paper Kos, B. A., Miller, S.. 2017. Grade-a-thons and Divide-and-Conquer: Effective Assessment at Scale. *ASEE '17: American Society of Engineering Education 124th Annual Conference & Exposition*, (Columbus, OH, 2017).
Aug 2016	ICER '16 — Full Paper Behnke, K. A., Kos, B. A., Bennett, J. K. 2016. Computer Science Principles: Impacting Student Motivation & Learning Within and Beyond the Classroom. *ICER '16: Proceedings of the twelfth annual International Conference on International Computing Education Research*, (Melbourne, AUS, 2016), 171-180.
Mar 2015	SIGCSE '15 — Work-In-Progress Kos, B. A., Sims, E. 2015. STEM Careers Infographic Project (SCIP): Teaching Media-Based Computational Thinking Practices. *SIGCSE '15: Proceedings of the 45th SIGCSE Technical Symposium on Computer Science Education*, (Kansas City, MO, USA, 2015), 681.
Oct 2014	RMCWiC '14 — Full Paper Kos, B. A., Sims, E. 2014. Infographics: The New 5-Paragraph Essay. *2014 Rocky Mountain Celebration of Women in Computing*, (Laramie, WY, USA, 2014).

Presentations

Sep 2015	7th Annual Symposium on STEM Education — Work-In-Progress *Computer Science is Hard: Looking at the Gender Gap Between Two Computing Programs*
Aug 2015	ICER '15 — Lightning Talk and Poster — Work-In-Progress *Computer Science is Hard: Looking at the Gender Gap Between Two Computing Programs*
April 2015	ATLAS Expo — Work-In-Progress *Building Culture Within Introductory Programming*
Sep 2014	6th Annual Symposium on STEM Education — Work-In-Progress *STEM Careers Infographic Project (SCIP)*

Professional Activities

Jun 2017	American Society of Engineering Education (ASEE) 2017: The 124th Annual Conference & Exposition *Columbus, OH, USA*
May 2017	National Center for Women in IT (NCWIT) 2017 Summit *Tuscon, AZ, USA*

Jun 2016	Hackcon: The official hackathon organizers' conference *Estes Park, CO, USA*
Aug 2015	ACM International Computing Education Research (ICER) Conference *Omaha, Nebraska, USA*
Mar 2015	ACM Special Interest Group on Computer Science Education Conference (SIGCSE) *Kansas City, Missouri, USA*
Oct 2014	Rocky Mountain Celebration of Women in Computing Conference (RMCWiC) *Laramie, Wyoming, USA*
Oct 2013	Grace Hopper Celebration of Women in Computing Conference *Minneapolis, Minnesota, USA*
Mar 2013	ACM Special Interest Group on Computer Science Education Conference (SIGCSE) *Denver, Colorado, USA*
Oct 2011	Colorado Celebration of Women in Computing (CCWIC) (renamed to RMCWiC) *Denver, Colorado, USA*

Nonprofit Experience

2013-2015	Earth Explorers Board Member, Evaluation Lead, Senior Volunteer, Mentor 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.

Work Experience

2012 - 2013	ZOLL Medical: User Experience Developer ZOLL is a medical company that offers EMS agencies and medical companies software solutions. I worked on the UI of ZOLL Online, maintaining current products, and helping design and integrate new products into the website. I lead projects and learn about the design cycle in a real-world setting.
2010 - 2012	College of Arts & Sciences IT (ASIT): Web Application Developer ASIT is the in-house IT department University of Colorado's College of Arts & Sciences utilizes to build web applications. I was primarily responsible for the design and implementation of the Orientation checklist, seen by all freshmen and first-year students enrolled at CU. I also helped with implementing usability changes to the Advisor Portal and the Graduation Module, used by all advisors in the college.
2010 - 2011	College of Arts & Sciences IT: Web Developer Transferred and updated the JILA website.