Brittany Ann Kos

Curriculum Vitae

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Education

May 2017 (expected) — PhD 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

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.

Teaching Experience

Instructor

Spring 2016 (expected) — ATLS 2400: Code (Listed as ATLS 2519: Special Topics: Code)

Fall 2015 — ATLS 2400: Code (Listed as ATLS 2519: Special Topics: 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. May be repeated for a total of 6 credit hours. Prerequisites: Requires prerequisite courses of ATLS 2000 and 3010 (all minimum grade C). Restricted to students with minor in Technology, Arts, and Media (MTAM).

Teaching Assistant

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: 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 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
Summer 2013 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.

Publications

Mar 2015	SIGCSE '15 — Work-In-Progress Kos, B. A., Sims, E. (2015). *STEM Careers Infographic Project (SCIP): Teaching Media-Based Computational Thinking Practices*. In Proceedings of the 45th SIGCSE technical symposium on Computer science education, March 2015, Kansas City, MO, USA. ACM.
Oct 2014	RMCWiC '14 — Full Paper Kos, B. A., Sims, E. (2014). *Infographics: The New 5-Paragraph Essay*. In 2014 Rocky Mountain Celebration of Women in Computing, October 2014, Laramie, WY, USA.

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

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

Volunteer Work

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

Jun 2013 — Present
Kode Studios: Creator and Developer
Kode Studios is a web design and development firm, founded by Brittany Ann Kos in 2013 in Boulder, Colorado. Since then Kode has been working on building their web presence by assisting in local web projects around the community.

Jun 2012 - Jun 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 was able to lead a few projects and learn about the design cycle in a real-world setting.

Oct 2010 - Jun 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.

Sep 2010 - Jan 2011
College of Arts & Sciences IT: Web Developer
Transferred and updated the JILA website.