



*LIGHTNING TALKS (alphabetically by last name)*

**1. Mirela Alistar**

University of Colorado - Boulder

*Personal Biochips*

What if instead doctors could perform the tests while the patient waits? Or, what if we could empower patients to perform selected tests at home? I create cyber-physical systems based on electronic devices called biochips in order to ubiquitize healthcare by moving the process of diagnosis closer to the patient.

**2. Elita Danilyuk**

Colorado State University

*PortfoliU Project: How an Open Source Repository can Benefit Computer Science Students*

PortfoliU Project is an open-source repository with resources and documentation to help students create their own portfolio webpage which gives students the ability to showcase their skills in a meaningful way. PortfoliU Project is catered for computer science students to get involved in open-source and to learn from their experience.

**3. Kevin Gifford**

University of Colorado - Boulder

*Spectrum Engineering for the 21st Century*

Overviews spectrum dependent systems, spectrum efficiency, and spectrum sharing concepts for reducing/eliminating spectrum scarcity.

**4. Varsha Koushik**

Colorado College

*Empowering People with Cognitive Disabilities in Daily Activities*

People with cognitive disabilities envision living independently, but face challenges in their everyday lives because of their diverse range of abilities. This talk discusses customized smart devices as a means to support accessibility and motivational barriers in daily activities and provide increased independence to individuals with cognitive disabilities.

**5. Kathy Nielsen**

University of Colorado - Boulder/Western Colorado University

*Collaborative Software Development*

A popular culture image of computer programming as a young male absorbed in his computer screen, working alone does not reflect the diversity of actual practice. Ensemble (mob) programming structures group interaction, enhancing the reach of knowledge sharing and building team safety necessary for collaboration to be creative and effective.

**6. Robin Tutchton**

ICR inc.

*Reverse Engineering Tools*

A deep dive into how to use IDA pro, ghidra and other RE tools.

**7. Lucia Williams**

Montana State University

*Data Structures and Algorithms for DNA data*

You may guess that good computer hardware is essential to our ability to sequence, store, and process DNA. But did you know that data structures and algorithms are also key elements in these tasks? My research helps develop fundamental algorithmic knowledge to sequence different types of genetic data.