**FRIDAY**

## Session 1

|  | **Room: Hidatsa** | | **Room: Arikara** | |
|---|---|---|---|---|
| **1:00 PM** | Md. Minhaz Chowdhury | Cloud Security: Challenges, Attacks, and Techniques | Nancy Mahlen | Promulgating Computer Science in High School Education |
| **1:30 PM** | Sayeed Sajal | Cyber-Physical System Security Treats: Challenges and Solutions | Muhammad Abusaqer | Teaching Computer Packages to Students Different in Everything |
| **2:00 PM** | Md. Minhaz Chowdhury | Honeypots: Security by Deceiving Threats | Andrew Jones | Analysis of Autonomous Robotic Competitions for Problem-Based Learning |
| **2:30 PM** | Kendall Nygard | Trust and its influence on Technology | Warren S. Vaz | Promoting Undergraduate Computing and Engineering Research via Educational and Scientific Drones Case Study: Hexacopter Drone with Raspberry Pi Module |

## Session 2

|  | **Room: Hidatsa** | | **Room: Arikara** | |
|---|---|---|---|---|
| **4:00 PM** | Md. Minhaz Chowdhury | Security Issues of SCADA Systems | Riley Conlin | Deep Network Ice Crystal Classification using Spatial Pyramid Pooling for Inconsistent Image Dimensions |
| **4:30 PM** | Kendall E. Nygard | Identifying Malicious Users Through Behavior | David Doll | Visualizing Real-time Feedback of a Rehabilitation Trainer |
| **5:00 PM** | Emerald Simkhada | Security Threats/Attacks via Botnets and Botnet Detection & Prevention techniques in Computer Networks: A Review | Ronald Marsh | Visual Means for 3D Printer Quality Assessment |
| **5:30 PM** | Teddy Pare | Darknet and Black Market Activities against the Cybersecurity: A Survey | Ben Bernard | Designing and Implementing a low cost 3D printer farm |

**FRIDAY**

## Session 1

**Room: Badlands**                                      **Room: Mandan**

| | | | | |
|---|---|---|---|---|
| **1:00 PM** | Israt Jahan | Mobile Applications Online Review and Rating Research: A Systematic Analysis and Heuristic-Systematic Model | Tamaike Brown | Cloud Security Model CSM 2.0: An Autonomic Cloud Security Gateway |
| **1:30 PM** | Wen-Chen Hu | Robust Privacy Preservation of Location-Based Services Using Dummy Locations or Routes | Erich Rice | Evaluation of the Performance of Two Public Cloud Computing Platforms Through the Use of a Distributed Encryption System |
| **2:00 PM** | Sayeed Sajal | Need and Challenges of Edge Computing in Software Engineering for Internet of Things (IoT) | Ashley Creps | Web Accessibility: an Introduction |
| **2:30 PM** | Matthew Wright | Finding Minimal Spanning Forests in a Graph | Trevor Tracy & Thomas Marrinan | Web Browser Rendering and Interaction in Custom OpenGL Applications |

## Session 2

**Room: Badlands**                                      **Room: Mandan**

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|---|---|---|---|---|
| **4:00 PM** | Mohamed Omar | Interpolating Historical Photos Using Neural Networks | Sayeed Sajal | System Issues in Software Development-Problems, Effects and Solutions |
| **4:30 PM** | Cohl Dorsey | Artificial Civ: Deep Learning Strategies for Multiplayer Turn-Based Video Games | Saleh Alnaeli | How to Empirically Assess the Quality of Software Source Code in The Era of Multicore Architecture and Multithreaded Programming |
| **5:00 PM** | Naomi Green | Neural Networks in Robotics | Sayeed Sajal | Impact of Software Tools and Environment to the Development Process |
| **5:30 PM** | Tribikram Adhikari | Comparing the Viability of Different Machine Learning Models to Predict Student Retention | Tamaike Brown | Machine Learning (ML) Framework for Identifying Inconsistencies in Software Requirement Document (SRD) |

**FRIDAY**

<u>**Session 2**</u>

**Room: Meadow Lark**

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|---|---|---|
| **4:00 PM** | Thomas E. Gibbons | Nifty Assignment: Jupyter Notebooks in the Cloud with Google's Colab |
| **4:30 PM** | Darren Seifert | Nifty Assignment: Incorporating Game Design in an Introductory Computer Science Classroom |
| **5:00 PM** | Panel | Faculty Birds-of-a-Feather |
| **5:30 PM** | | |

**SATURDAY**

## Session 3

| | **Room: Hidatsa** | | **Room: Arikara** | |
|---|---|---|---|---|
| **8:30 AM** | Mohammad Barrawi | Safe Functions Algorithm | Ben Bernard | Virtual Reality Labs and Curriculum Integration |
| **9:00 AM** | Dennis Guster | Protection Effectiveness and Vulnerabilities of the Heap With in Docker Container Systems | Adam Poland | Haptic Interface for the Visually Impaired |
| **9:30 AM** | Divyaa Kamalanathan | Comparing NoSQL and SQL database systems based on vulnerability to injections and adequacy of countermeasures | Ben Bernard | Augmented Reality Sand Table for Teaching and Research |

## Session 4

| | **Room: Hidatsa** | | **Room: Arikara** | |
|---|---|---|---|---|
| **10:30 AM** | Jeremy Straub | No Courses, No Budget, No Hardware … No Problem: Development of an Agile Cybersecurity Program | Sumin Yi | Evaluating the impact of time delays and start sequence for effective congestion control using TCP Reno, Westwood and Vegas |
| **11:00 AM** | Demitrius Fenton | Overview of NDSU Computer Science Cyber Range Development | Brandon Mord | Method for Decoupled and Cohesive Data Communication in Avionics with Non-Terminating Threads |
| **Noon** | Donald Heier | Developing Cybersecurity Degree Programs to Meet Workforce Needs | Gary Griswold | Quantitative Analysis to Verify Fairness of TCP CUBIC in NS-2 |

**SATURDAY**

<u>**Session 3**</u>

| | **Room: Badlands** | | **Room: Mandan** | |
|---|---|---|---|---|
| **8:30 AM** | Amrita Chatterjee | Solving Travelling Salesman Problem with Probabilistic Elitist Ant Colony Optimization | Sayeed Sajal | Test-driven development(TDD) - Challenges and Potential Pitfalls |
| **9:00 AM** | Shawn Saliyev, Nicholas M. Plucker, Nicholas Freitag McPhee | Rerunning the Course of Evolutionary Computation | Erik Steinmetz | Building a Computer Cluster Using Recently Retired Server-Grade Computers |
| **9:30 AM** | Salvatore Skare | Using a Recurrent Neural Network and Articulatory Synthesis to Accurately Model Speech Output | Shaun Lynch | Reviewing an Academic Computing Infrastructure: Reflecting on the Past to Forge a Path into the Future |

<u>**Session 4**</u>

| | **Room: Badlands** | | **Room: Mandan** | |
|---|---|---|---|---|
| **10:30 AM** | Scott Kerlin | Creating a Machine Learning Algorithm to Play a Collection Mini-Game | Riley Conlin | Deep Network Ice Crystal Classification using Spatial Pyramid Pooling for Inconsistent Image Dimensions |
| **11:00 AM** | David Mathias | A Co-evolutionary Genetic Algorithm to Avoid Airline Passenger Denied Boarding | Scott Kerlin | Using Parallelization and SIMD to Compute Graph Colorings |
| **Noon** | Lakshmi Priya Girish Kumar | Text mining on business and computer science undergraduate internship job postings | Mao Zheng | Exploring Restaurants' Text Reviews vs. Rating using Yelp Dataset |

**SATURDAY**

**Session 3**

**Room: Room of Nations**                    **Room: Prairie Rose**

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|---|---|---|---|---|
| **8:30 AM** | Michael Witham | Comparative analysis of MariaDB's performance efficiency as a suitable replacement for MySQL | Panel | A BOF Discussing Professional Development in CS for K12 Teachers |
| **9:00 AM** | Ian Gilbert | Git Repositories | | |
| **9:30 AM** | John Repko | Jump-starting The "Computer Revolution" That Hasn't Begun Yet | | |

**Session 4**

**Room: Room of Nations**                    **Room: Prairie Rose**

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|---|---|---|---|---|
| **10:30 AM** | Sayeed Sajal | Software Project Management and its Related Factors | Panel | Additive Manufacturing & Its Applications |
| **11:00 AM** | Sayeed Sajal | Software Project Management and Underlying Development Factors | | |
| **Noon** | | | | |