

# EAAI-23 Program Schedule

Saturday, February 11, 2023

*All times are Eastern Time Zone*

## **8:30 - 8:45: Welcome**

*Michael Guerzhoy and Pat Virtue*

## **8:45 - 9:30: Model AI Assignments I**

Chair: Todd Neller

- Analyzing the COMPAS Recidivism Algorithm  
*Raechel Walker, Olivia Dias, Zeynep Yalçın, Cynthia Breazeal, Matt Taylor, and Michele Donini*
- The WARLACS AI Assignments  
*Erin Talvitie*
- Regret Matching Notebook  
*Charlie Pilgrim and Paolo Turrini*

## **9:30 - 10:00: Blue Sky Ideas**

Chairs: Michael Guerzhoy and Pat Virtue

- How could we teach AI topics at an early undergraduate or a secondary school level?  
*Rajiv Ratn Shah*
- Can we use some advances in AI to teach AI? How could we make AI education more interdisciplinary?  
*Yaman Kumar*
- Using Critical Design Methods to Teach AI Ethics  
*Alexi Orchard*
- Making AI Education More Interdisciplinary Through Computational Creativity  
*Carolyn Jane Anderson*

## **10:00 - 10:30: Poster Previews I**

Moderators: Michael Guerzhoy and Pat Virtue

- Build-A-Bot: Teaching Conversational AI Using a Transformer-Based Intent Recognition and Question Answering Architecture  
*Kate Pearce, Sharifa Alghowinem, and Cynthia Breazeal*
- "How Can I Code A.I. Responsibly?": The Effect of Computational Action on K-12 Students Learning and Creating Socially Responsible A.I.  
*H. Nicole Pang, Robert Parks, Cynthia Breazeal, and Hal Abelson*
- CLIPS Stars Assignment  
*Terrence Fries*
- Responsible Robotics -- A Socio-Ethical Addition To Robotics Courses  
*Joshua Vekhter and Joydeep Biswas*
- FOLL-E: Teaching First Order Logic to Children  
*Simon Vandavelde and Joost Vennekens*
- Maestro: A Gamified Platform for Teaching AI Robustness  
*Margarita Geleta, Jiachen Xu, Manikanta Loya, Junlin Wang, Sameer Singh, Zhou Li, and Sergio Gago Masague*

- Data Labeling for Machine Learning Engineers: Project-Based Curriculum and Data-Centric Competitions  
*Anastasia Zhdanovskaya, Daria Baidakova, and Dmitry Ustalov*

**10:30 - 10:45: Coffee Break**

**10:45 - 11:15: AI for Education I**

Chair: Collin Lynch

- Concept Activation Vectors for Interpretable Raw Time Series Models in Education  
*Mohammad Asadi, Vinitra Swamy, Jibril Frej, Julien Vignoud, Mirko Marras, and Tanja Käser*
- Exploring Tradeoffs in Automated School Redistricting: Computational and Ethical Perspectives  
*Fanglan Chen, Subhodip Biswas, Zhiqian Chen, Shuo Lei, Naren Ramakrishnan, and Chang-Tien Lu*

**11:15 - 12:00: Resources for Teaching AI in K-12 I**

Chairs: Christina Gardner-McCune and Dave Touretzky

- Design and Develop AI Learning Resources for Compulsory Education in China  
*Jiachen Song, Jinglei Yu, Li Yan, Linan Zhang, and Yu Lu*
- Beyond Black-Boxes: Teaching Complex Machine Learning Ideas Through Scaffolded Interactive Activities  
*Brian Broll and Shuchi Grover*
- Scratch for Sports: Athletic Drills as a Platform for Experiencing, Understanding, and Developing AI-driven Apps  
*Vishesh Kumar and Marcelo Worsley*

**12:00 - 2:00: Lunch Break**

**2:00 - 3:00: AAAI/EAAI Patrick Henry Winston Outstanding Educator Award**

**3:00 - 3:15: Break**

**3:15 - 4:15: Poster Session and Coffee Break**

**4:15 - 5:00: Resources for Teaching AI in K-12 II**

Chairs: Christina Gardner-McCune and Dave Touretzky

- Exploring Artificial Intelligence in English Language Arts with StoryQ  
*Jie Chao, Rebecca Ellis, Shiyan Jiang, Carolyn Rose, William Finzer, Cansu Tatar, James Fiacco, and Kenia Wiedemann*
- Guiding Students to Investigate What Google Speech Recognition Knows About Language  
*David Touretzky and Christina Gardner-McCune*
- An Introduction to Rule-Based Feature and Object Perception for Middle School Students  
*Daniella DiPaola, Parker Malachowsky, Nancye Blair Black, Sharifa Alghowinem, Xiaoxue Du, and Cynthia Breazeal*

**5:00 - 5:45: AI for Education II**

Chair: Collin Lynch

- Solving Math Word Problems Concerning Systems of Equations with GPT3  
*Mingyu Zong and Bhaskar Krishnamachari*

- H-AES: Towards Automated Essay Scoring for Hindi  
*Shubhankar Singh, Anirudh Pupneja, Shivaansh Mital, Cheril Shah, Manish Bawkar, Lakshman Prasad Gupta, Ajit Kumar, Yaman Kumar, Rushali Gupta, and Rajiv Ratn Shah*
- Detecting Exclusive Language During Pair Programming  
*Solomon Ubani, Rodney Nielsen, and Helen Li*

### 5:45 - 6:15: Main Track I

Chairs: Michael Guerzhoy and Pat Virtue

- AI and Parallelism in CS1: Experiences and Analysis  
*Steven Bogaerts*
- Autonomous Agents: An Advanced Course on AI Integration and Deployment  
*Stephanie Rosenthal and Reid Simmons*

## Sunday, February 12, 2023

### 8:45 - 9:00: Announcements

*Michael Guerzhoy and Pat Virtue*

### 9:00 - 9:30: Resources for Teaching AI in K-12 III

Chairs: Christina Gardner-McCune and Dave Touretzky

- Literacy and STEM Teachers Adapt AI Ethics Curriculum  
*Benjamin Walsh, Bridget Dalton, Stacey Forsyth, and Tom Yeh*
- AI Audit: A card game to reflect on everyday AI systems  
*Safinah Ali and Vishesh Kumar*

### 9:30 - 10:00: Main Track II

Chairs: Michael Guerzhoy and Pat Virtue

- AI Made By Youth: A Conversational AI Curriculum for Middle School Summer Camps  
*Yukyeong Song, Gloria Ashiya Katuka, Joanne Barrett, Xiaoyi Tian, Amit Kumar, Tom McKlin, Mehmet Celepkolu, Maya Israel, and Kristy Boyer*
- An Analysis of Engineering Students' Responses to an AI Ethics Scenario  
*Alexi Orchard and David Radke*

### 10:00 - 10:30: Poster Previews II

Moderators: Michael Guerzhoy and Pat Virtue

- Context-Aware Analysis of Group Submissions for Group Anomaly Detection and Performance Prediction  
*Narges Norouzi and Amir Mazaheri*
- Does Knowing When Help is Needed Improve Subgoal Hint Performance in an Intelligent Data-driven Logic Tutor?  
*Nazia Alam, Mehak Maniktala, Behrooz Mostafavi, Min Chi, and Tiffany Barnes*
- Learning Logical Reasoning Using an Intelligent Tutoring System: A Hybrid Approach to Student Modeling  
*Roger Nkambou, Janie Brisson, Ange Tato, and Serge Robert*
- Learning Affects Trust: Design Recommendations and Concepts for Teaching Children—and Nearly Anyone—about Conversational Agents  
*Jessica Van Brummelen, Mingyan Claire Tian, Maura Kelleher, and Nghi Hoang Nguyen*

- A study of students' learning of computing through an LP-based integrated curriculum for middle schools  
*Joshua Archer, Rory Eckel, Joshua Hawkins, Jianlan Wang, Darrel Musslewhite, and Yuanlin Zhang*
- Shared Tasks as Tutorials: A Methodical Approach  
*Theresa Elstner, Frank Loebe, Yamen Ajjour, Christopher Akiki, Alexander Bondarenko, Maik Fröbe, Lukas Gienapp, Nikolay Kolyada, Janis Mohr, Stephan Sandfuchs, Matti Wiegmann, Jörg Frochte, Nicola Ferro, Sven Hofmann, Benno Stein, Matthias Hagen, and Martin Potthast*
- Exploring Social Biases of Large Language Models in a College Artificial Intelligence Course  
*Skylar Kolisko and Carolyn Anderson*

### **10:30 - 10:45: Coffee Break**

### **10:45 - 11:30: Model AI Assignments II**

Chair: Todd Neller

- Training Artificial Neural Networks to Beat StarCraft II  
*James Maher, Matthew Boutell, and Justin Wilson*
- A 4-Module Sequence for Applied Deep Learning  
*Narges Norouzi*
- Local Search in Ackley Surface with Scaffolding  
*Jonathan Scott and Narges Norouzi*

### **11:30 - 12:30: EAAI Mentored Undergraduate Research Challenge 2023: Human-Aware AI in Sound and Music**

Chair: Rick Freedman

- Research Challenge Introduction and Announcements  
*Rick Freedman*
- Emotion-Aware Music Recommendation  
*Hieu Tran, Tuan Le, Anh Do, Tram Vu, Steven Bogaerts, and Brian Howard*
- Music-to-Facial Expressions: Emotion-Based Music Visualization for the Hearing Impaired  
*Yubo Wang, Fengzhou Pan, Danni Liu, and Jiaxiong Hu*
- Predicting Perceived Music Emotions with Respect to Instrument Combinations  
*Viet Dung Nguyen, Quan H. Nguyen, and Richard G. Freedman*

### **12:30 - 2:00: Lunch Break**

### **2:00 - 2:45: EAAI Mentored Undergraduate Research Challenge 2023: Human-Aware AI in Sound and Music (cont.)**

Chair: Rick Freedman

- MoMusic: A Motion-Driven Human-AI Collaborative Music Composition and Performing System  
*Weizhen Bian, Yijin Song, Nianzhen Gu, Tin Yan Chan, Tsz To Lo, Tsun Sun Li, King Chak Wong, Wei Xue, and Roberto Alonso Trillo*
- Learning Adaptive Game Soundtrack Control  
*Aaron Dorsey, Todd Neller, Hien Tran, and Veysel Yilmaz*
- A Multi-User Virtual World With Music Recommendations And Mood-Based Virtual Effects  
*Charats Burch, Robert Sprowl, and Mehmet Ergezer*

**2:45 - 3:15: AI for Education III**

Chair: Collin Lynch

- CLGT: A Graph Transformer for Student Performance Prediction in Collaborative Learning  
*Tianhao Peng, Yu Liang, Wenjun Wu, Jian Ren, Zhao Pengrui, and Yanjun Pu*
- A Dataset for Learning University STEM Courses at Scale and Generating Questions at a Human Level  
*Iddo Drori, Sarah Zhang, Zad Chin, Reece Shuttleworth, Albert Lu, Linda Chen, Bereket Birbo, Michele He, Pedro Lantigua, Sunny Tran, Gregory Hunter, Bo Feng, Newman Cheng, Roman Wang, Yann Hicke, Saisamrit Surbehera, Arvind Raghavan, Alexander Siemenn, Nikhil Singh, Jayson Lynch, Avi Shporer, Nakul Verma, Tonio Buonassisi, and Armando Solar-Lezama*

**3:15 - 4:15: Poster Session and Coffee Break**

**4:15 - 4:45: EAAI Community Meeting**