

# ROSANNA VITIELLO

(508) 380 9713 | [rosanna.m.vitiello@gmail.com](mailto:rosanna.m.vitiello@gmail.com) | [personal website](#) | [google scholar](#)

## EDUCATION

---

- Carnegie Mellon University**, Pittsburgh, PA *Sept 2023 - Present*  
Ph.D. in Language and Information Technologies | advised by Carolyn Rosé & Yonatan Bisk
- Carnegie Mellon University**, Pittsburgh, PA *Aug 2023*  
M.S. in Language and Information Technologies
- Tufts University**, Medford, MA *May 2021*  
B.S. in Computer Science & B.S. in Cognitive and Brain Science, *Summa Cum Laude*

## WORK EXPERIENCE

---

- Carnegie Mellon University**, Pittsburgh, PA *Sept 2021 – Present*  
*Graduate Researcher with Prof. Carolyn Rosé and Prof. Yonatan Bisk*
- Creating LLM tools to provide facilitation and support during human-AI collaboration.
- Nasuni**, Boston, MA *May 2020 – Aug 2021*  
*Software Engineer Intern*
- Deployed scripts for QA, integrated bug fixes, and conducted analysis of customer data.
- Tufts University**, Medford, MA *Dec 2020 – May 2021*  
*Undergraduate Researcher with Tufts Human Interaction Lab*
- Contributed to development of GailBot, a speech-to-text system for transcribing paralinguistic features in conversation analysis.

## TECHNICAL SKILLS

---

**Languages:** Python, C/C++, Java, Shell Scripting, R, HTML/CSS  
**Tools & Frameworks:** PyTorch, TensorFlow, NumPy, Pandas, OpenCV, scikit-learn, Git  
**Relevant Coursework:** Advanced NLP, ML, Deep Learning, Multimodal ML

## SELECTED PROJECTS

---

- Tutors for Increasing Collaborations and Improving Strategies in Diplomacy** | Multi-Turn Reasoning, LLM Agents
- Ongoing research project building AI tools to improve long-term reasoning and collaborations of players in the board game Diplomacy.
- [Evaluating Interdependent Collaboration in Multi-Agent LLM Systems](#)** | Python, LLM Agents
- Led research project implementing multi-agent LLMs by applying state-of-the-art prompt engineering and agent design methods to optimize task-specific decision-making.
- [Traveling Bazaar](#)** | Education, Python, Computer Vision, On-Device ML
- Developed portable multimodal agent demo at ISLS to support student learning in classrooms.
  - Integrated on-device ML methods to analyze student interactions and trigger dynamic support.
- [Recrafting Computer Science](#)** | Education & Teaching, Data Analysis, User Study Design
- Conducted user study, data collection, and analysis to expand access to creative computing in weaving, robotics, and math curriculum at UCI leading to several publications at ISLS and CSCL.

## PUBLICATIONS

---

1. **Evaluating Interdependent Collaboration in Multi-Agent LLM Systems**  
**Rosanna Vitiello**, Yonatan Bisk, Carolyn Rosé  
*Preprint. Under Review.*
2. **How Do Students Deliberate for Socially Shared Regulation in Collaborative Learning? A Process-Oriented Approach**  
Belle Dang, **Rosanna Vitiello**, Andy Nguyen, Carolyn Rosé, Sanna Järvelä  
*International Conference on Computer-Support Learning (CSCL), 2023*
3. **Towards Visible Socially-Shared Regulation of Learning: Exploring the Role of Learning Design**  
Cristina Villa-Torrano, **Rosanna Vitiello**, Jiaxin Shi, Carolyn P. Rosé, Juan I. Asensio-Pérez, Yannis Dimitriadis, Eduardo Gómez-Sánchez and Miguel Bote-Lorenzo  
*International Conference on Computer-Support Learning (CSCL), 2023*
4. **“Where is the Z-axis?”: Negotiating Understanding of Servo Rotation Through Gestures and Tools**  
Nickolina Yankova, Joey Huang, **Rosanna Vitiello**, Samantha Speer, Melisa Orta-Martinez, Carolyn Rosé, Kylie Pepler  
*International Conference of the Learning Sciences (ICLS), 2023*
5. **Model Transfer for Event Tracking as Transcript Understanding for Videos of Small Group Interaction**  
Sumit Agarwal, **Rosanna Vitiello**, Carolyn Rosé  
*First Workshop on Transcript Understanding, COLING 2022*
6. **ET tu, CLIP? Addressing Common Object Errors for Unseen Environments**  
**Rosanna Vitiello\***, Ye Won Byun\*, Cathy Jiao\*, Shariar Noroozizadeh\*, Jimin Sun\*  
*Embodied AI Workshop, CVPR 2022*

## DEMOS & PRESENTATIONS

---

1. **Traveling Bazaar: Portable Support for Face-to-Face Collaboration**  
**Rosanna Vitiello**, Soham Dinesh Tiwari, R. Charles Murray, and Carolyn Rose  
*Interactive Tools and Demo Presentation, CSCL 2023*
2. **Studying Interdisciplinary Collaboration as a Core Skill**  
**Rosanna Vitiello**, Joey Huang, Samantha Speer, Nickolina Yankova, Kylie Pepler, Melisa Orta-Martinez, and Carolyn Rose  
*Poster Presentation, CSCL 2023*

## TEACHING EXPERIENCE

---

### Teaching Assistant

- |             |  |
|-------------|--|
| 2019 - 2021 | Head Teaching Fellow in Introduction to Algorithms, Tufts University     |
| 2018 - 2019 | Teaching Assistant in Introduction to Computer Science, Tufts University |

### Student Mentoring

- |                |                                  |
|----------------|----------------------------------|
| 2024 - Present | Sheryl Matthew, CMU Master (SCS) |
|----------------|----------------------------------|

## COMMUNITY SERVICES

---

- |      |   |
|------|---|
| 2025 | <i>Committee Member</i> , Student Committee for Faculty Hiring, CMU LTI |
| 2024 | <i>Paper Review</i> , TMLR, EMNLP                                       |