





# Mara Schwartz

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## EDUCATION

### MASTER OF SCIENCE | RENSSELAER POLYTECHNIC INSTITUTE

August 2021 - December 2022

COMPUTER SCIENCE, GPA 3.92 / 4.0

### BACHELOR OF SCIENCE | RENSSELAER POLYTECHNIC INSTITUTE

August 2017 - May 2021

DUAL IN COMPUTER SCIENCE AND COGNITIVE SCIENCE

ADDITIONAL MINOR IN MATHEMATICS, GPA 3.86 / 4.0

## EXPERIENCE

### GRADUATE RESEARCH ASSISTANT | LACAI LAB

August 2022 - December 2022 | Troy, NY

- Worked on GATOR, a 2.5-year IBM-funded research project to prototype a new type of task-oriented human-machine dialogue system
- Performed real-user evaluation of the model to compare with previous self-play evaluation done using the "Persuasion for Good" corpus
- Results to be published in AHFE International 2023 conference

### TEACHING ASSISTANT | RENSSELAER POLYTECHNIC INSTITUTE

September 2021 - May 2022 | Troy, NY

- TA for Programming Languages (Fall '21) and Data Structures (Spring '22)
- Mentored students, created and graded assignments

### UNDERGRADUATE RESEARCH ASSISTANT | LACAI LAB

May 2020 - August 2021 | Troy, NY

- Worked on the Socio-cultural Content in Language (SCIL) toolset, an NLP toolset used for automatically identifying social actions and characteristics of groups by examining the language used by members of those groups
- Rewrote/updated the SCIL toolset as a python package; achieved faster execution, equivalent accuracy, and more modularity than the older Java version

## PROJECTS

### MASTER'S PROJECT | PYTHON, SCIKIT-LEARN, HUGGING FACE TRANSFORMERS, JUPYTER

Principal Investigator | 2022

- Created twitter user clusters using graph topography
- Created dialogues from the clusters for performing multi-turn analysis
- Identified main influencers and influential opinions within the dialogues

### YET ANOTHER COURSE SCHEDULER | ANGULARJS, RUBY, TYPESCRIPT, DOCKER

Project Lead, Developer, Mentor | 2018 - 2019

- Improved website layout and schedule creation functionality
- Created a scheduling sidebar and helped implement multi-semester scheduling
- Created an admin page to allow administrators to modify the database
- Mentored students for the Rensselaer Center for Open Source (RCOS)

## SKILLS

### PROGRAMMING

Proficient:

- C++ • C • Python
- CSS • HTML

Experienced:

- Java • Erlang
- Javascript • SQL

Familiar:

- Haskell • Ruby
- Scheme • Assembly

### LIBRARIES/Frameworks

- TensorFlow • PyTorch
- Hugging Face Transformers
- scikit-learn • Jupyter
- jQuery • Django • AngularJS

### TOOLS/PLATFORMS

- Git • Docker • Linux/Unix
- LaTeX • Gephi

## COURSEWORK

### GRADUATE

- ML From Data • ML & Optimization • Distributed Systems & Algorithms • Design & Analysis of Algorithms
- Parallel Computing
- Computing & Quantum Computing

### UNDERGRADUATE

- Data Structures • Intro to Algorithms • Computability and Logic • Operating Systems
- Graph Theory • Social Computing • Intro to AI
- Programming Languages
- Interactive Visualization
- Numerical Computing
- Linear Algebra

## AWARDS

- |             |                             |
|-------------|-----------------------------|
| 2017 - 2021 | Rensselaer Leadership Award |
| 2017 - 2021 | Dean's Honor List           |