


# Sofia Eleni Spatharioti

Post Doctoral Researcher, Microsoft Research NYC

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## Education

**Northeastern University**, Boston, MA, USA


(09/2015 - 12/2020)


PhD in Computer Science

GPA: **3.8/4**

**Advisor:** Prof. Seth Cooper

**Thesis:** *Designing Effective Interfaces for Motivating Engagement in Crowdsourced Image Labeling*

**Selected Courses:**  Advanced Algorithms, Machine Learning, Human Computer Interaction

**Selected Projects:**  Design of a web application for homebuyers in Boston (collaboration with the Boston Mayor's Office and the Boston Home Center)

**National Technical University of Athens**, Athens, Greece

(09/2009 - 06/2015)

Degree in Electrical and Computer Engineering, (5-year study program, MSc equivalent)

**Thesis:** *"Study, Extraction and Utilization of Relational Models among Virtual Entities in the Social Internet of Things"*

## Research Experience

**Microsoft Research**, New York City, NY USA

Postdoctoral Researcher, Computational Social Science Group

(03/2021 - Present)




-  Working on the Perspectives Engine project about generating helpful analogies for unfamiliar numbers. Part of my work has been deployed to Microsoft PowerPoint.

**Northeastern University**, Boston, MA USA

Research Assistant, Khoury College of Computer Sciences

(09/2015 - 12/2020)

**Advisor:** Prof. Seth Cooper



-  Research interests include games, human computer interaction and crowdsourcing.
-  Working on Cartoscope, an open-source research project on crowdsourcing for image labeling.
-  Focus of research project includes the influence of various factors, such as task variety, interface design and collaboration/competition in user experience and engagement.

**Microsoft Research**, New York City, NY USA

Research Intern, Computational Social Science Group


(05/2018 - 08/2018 & 05/2019 - 08/2019)

**Mentors:** Jake Hofman & Dan Goldstein

-  Worked on the Perspectives Engine project about generating helpful analogies for unfamiliar numbers.
-  Designed and implemented a crowdsourcing platform and database for generating perspectives for helping people understand unfamiliar numbers encountered in news and other sources.


## Publications


 **Sofia Eleni Spatharioti**, Eliza Boetsch, Scott Eustis, Kutub Gandhi, Matt Rota, Archana Apte, Seth Cooper, Sara Wylie (2022) *An Effective Platform for Crowd Classification of Coastal Wetland Loss*, In: Conservation Science and Practice.




 Kutub Gandhi, **Sofia Eleni Spatharioti**, Scott Eustis, Sara Wylie and Seth Cooper, (2022) *Performance of Paid and Volunteer Image Labeling in Citizen Science — A Retrospective Analysis*, In: 10th AAAI Conference on Human Computation and Crowdsourcing. (HCOMP2022)

 **Sofia Eleni Spatharioti**, Sara Wylie and Seth Cooper, (2021) *Exploring Q-Learning for Adaptive Difficulty in a Tile-based Image Labeling Game*, In: 3rd IEEE Conference on Games. (COG2021)

 Kutub Gandhi, Josh Aaron Miller, **Sofia Eleni Spatharioti**, Archana Apte, Bornha Fatehi, Sara Wylie and Seth Cooper, (2021) *A Comparison of Augmented Reality and Digital Versions of a Citizen Science Game*, In: 16th International Conference on the Foundations of Digital Games. (FDG2021)








 **Sofia Eleni Spatharioti**, Bornha Fatehi, Melanie Smith, Avery Rosenbloom, Josh Aaron Miller, Magy Seif El-Nasr, Sara Wylie, Seth Cooper, (2020) *Tile-o-Scope AR: An Augmented Reality Tabletop Image Labeling Game Toolkit*, In: 15th International Conference on the Foundations of Digital Games. (FDG2020)

 **Sofia Eleni Spatharioti**, Sara Wylie and Seth Cooper, (2019) *Using Q-Learning for Sequencing Level Difficulties in a Citizen Science Matching Game*, In: Extended Abstracts of the 2019 Annual Symposium on Computer-Human Interaction in Play. (CHIPLAY 2019)





-  **Sofia Eleni Spatharioti**, Sara Wylie and Seth Cooper, (2018) *Does Flight Path Context Matter? Impact on Worker Performance in Crowdsourced Aerial Imagery Analysis*, In: 15th International Conference on Information Systems for Crisis Response And Management. (ISCRAM 2018)
-  **Sofia Eleni Spatharioti**, Rebecca Govoni, Jennifer S. Carrera, Sara Wylie and Seth Cooper, (2017) *A Required Work Payment Scheme for Crowdsourced Disaster Response: Worker Performance and Motivations*, In: 14th International Conference on Information Systems for Crisis Response and Management. (ISCRAM 2017)
-  **Sofia Eleni Spatharioti** and Seth Cooper, (2017) *On Variety, Complexity, and Engagement in Crowdsourced Disaster Response Tasks*, In: 14th International Conference on Information Systems for Crisis Response and Management. (ISCRAM 2017)

 **Best Student Paper Award Nomination**

## Achievements & Awards

-  Awarded the Khoury College of Computer Sciences PhD Community Service award (2021).
-  Awarded the Dissertation Completion Fellowship from Northeastern University (2020).
-  Elected as the student representative in the Khoury College PhD Admissions Committee (2019).
-  Received the Khoury College Graduate Community Service Award (2019).
-  Nominated for Northeastern University's Outstanding Graduate Student Award in the category: Research: Life Sciences, Physical Sciences and Engineering (2018).
-  Presented Cartosco.pe at a citizen science exhibit at the Cleveland Museum of Natural History (2017).
-  Raised more than 1,000 Euros during a fund raising campaign for "Smile of the Child" non-profit voluntary organization as a member of the High School Student Council (2008).

## Presentations & Workshops

-  Eliza Boetsch, Kutub Gandhi, **Sofia Eleni Spatharioti**, Scott Eustis and Sara Wylie. (2021) *Land Loss Lookout : Tracking Wetland Loss in the Louisiana Mississippi River Delta*. River Rally 2021
-  **Sofia Eleni Spatharioti**, Sara Wylie and Seth Cooper. (2018) Identifying and Assessing Points of Interest through Crowdsourced Image Analysis. In: Proceedings of the ISCRAM 2018 Conference, Rochester, NY.
-  **Sofia Eleni Spatharioti**, Rebecca Govoni, Jennifer S. Carrera, Sara Wylie and Seth Cooper. (2017) Cartoscope: A New Platform for Citizen Science and Disaster Response. Citizen Science Association Conference, St. Paul, MN.
-  **Sofia Eleni Spatharioti**, Rebecca Govoni, Jennifer Carrera, Sara Wylie and Seth Cooper. (2016) Exploring Required Work and Progress Feedback in Crowdsourced Mapping. AAAI Conference on Human Computation and Crowdsourcing, Austin, TX.

## Work Experience

### Northeastern University, Boston, MA USA

*Teaching Assistant, CS7340*

(Fall 2019)

**Instructor:** Prof. Magy Seif El-Nasr

Gave lectures and lead in-class activities. Mentored students towards reading scientific papers, giving presentations about various HCI concepts, and preparing HCI reports based on final projects.

### Velti, Athens Greece

*Junior Software Engineer*

(10/2014 - 03/2015)

Part of the Innovation Department. Worked on *OPENi*, a European Union ICT Project, which is an open-source, web-based framework for integrating applications with cloud-based services and personal Cloudlets. Created an Authentication Server, as well as a fully functional web user interface for *OPENi*.

## Technical Skills




### Languages:

English: Fluent (CPE)  
French: Good (Sorbonne C1)  
Greek: Native speaker

### Programming Skills:

Python (Experienced)      CSS,HTML5 (Experienced)  
Javascript (Experienced)      AngularJS (Experienced)  
R, MATLAB (Experienced)      C#, Unity (Experienced)

## Service & Misc.

-  PC Member: FDG 2021, FDG 2017. Reviewer: CitSci 2017, ISCRAM 2018, CHI PLAY 2019, IEEE Transactions on Games 2020, Citizen Science: Theory and Practice 2021, CHI 2022.
-  Organizer of Northeastern University's Khoury PhD Women Group and Khoury PhD Social Hour.
-  Composer and performer for a music band, performed at various music halls.