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.

⊕ Developing computational models and crowdsourced approaches for automatically generating high quality reference objects for re-expressing complex and unfamiliar numerical information

⊕ 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

⊕ Conducted research at the intersection of Human Computer Interaction, Crowdsourcing and Games.

⊕ Developed Cartoscope, an open-source research project on crowdsourcing for environmental justice, disaster response and citizen science, Tile-o-Scope Grid, an image matching web game, and Tile-o-Scope AR, an Augmented Reality tabletop toolkit for image labeling.

⊕ Published papers on topics such as the influence 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, Borna 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**, Borna 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).

Selected 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 Conference 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 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, Javascript, R
- NodeJS
- MySQL

- CSS, HTML5, AngularJS
- C#, Unity
- Figma, Adobe PS (Familiar)

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.