

# Mike Schaekermann

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- OVERVIEW** My research focuses on developing methods to combine the power of human and machine intelligence for solving computational problems, with a special focus on the analysis of medical time series data. I am particularly interested in devising frameworks for the analysis of ambiguous edge cases to make machines more trustworthy and humans better learners.
- EDUCATION**
- |  |                        |
|--|------------------------|
| <b>Ph.D. Candidate</b>                           | 2016 - 2020 (expected) |
| University of Waterloo, ON, Canada               |                        |
| Computer Science                                 |                        |
| Advisors: Edith Law and Kate Larson              |                        |
| <b>Bachelor of Science in Engineering</b>        | 2014                   |
| Salzburg University of Applied Sciences, Austria |                        |
| Media Informatics                                |                        |
| Thesis Supervisor: Lennart Nacke                 |                        |
| <b>Staatsexamen</b> (equivalent to Bachelors)    | 2011                   |
| University of Marburg, Germany                   |                        |
| Medicine   |                        |
- AWARDS & HONOURS**
- |  |      |
|--|------|
| <b>Graduate Excellence Scholarship</b> (\$5,000) — UWaterloo             | 2017 |
| <b>David R. Cheriton Graduate Scholarship</b> (\$10,000) — UWaterloo     | 2016 |
| <b>International Doctoral Student Award</b> (\$11,760/year) — UWaterloo  | 2016 |
| <b>Amazon Web Services Research Grant</b> (\$7,000) — Amazon             | 2016 |
| <b>Merit-based Scholarship</b> — Salzburg University of Applied Sciences | 2014 |
| <b>Merit-based Scholarship for Foreign Studies</b>                       | 2014 |
| <b>Engineering Scholarship</b> — both Economic Chamber of Salzburg       | 2013 |
| <b>Nominee for the German National Academic Foundation</b>               | 2009 |
- CONFERENCE PAPERS**
- Curiously Motivated: Profiling Curiosity with Self-Reports and Behaviour Metrics in the Game Destiny.** Schaekermann, M., Ribeiro, G., Wallner, G., Kriglstein, S., Johnson, D., Drachen, A., & Nacke, L. E. **CHI PLAY'17**. Amsterdam, Netherlands.
- Online Bayesian Transfer Learning for Sequential Data Modeling.** Jaini, P., Chen, Z., Carbajal, P., Law, E., Middleton, L., Regan, K., Schaekermann, M., Trimponias, G., Tung, J., & Poupart, P. **ICLR'17**. Toulon, France.
- Testing Incremental Difficulty Design in Platformer Games.** Wehbe, R. R., Mekler, E. D., Schaekermann, M., Lank, E., & Nacke, L. E. **CHI'17**. Denver, CO.

**POSITION PAPERS**      **Resolvable vs. Irresolvable Ambiguity: A New Hybrid Framework for Dealing with Uncertain Ground Truth.** Schaekermann, M., Law, E., Williams, A. C., & Callaghan, W. Workshop on Human-Centered Machine Learning at **CHI'16**. San Jose, CA.

**CONFERENCE WORKSHOPS**      **Designing for Curiosity: an Interdisciplinary Workshop.** Co-organized with Edith Law, Pierre-Yves Oudeyer, Ming Yin, & Alex Williams at **CHI'17**.

**WORK EXPERIENCE**

**Visiting Researcher**      2017  
Inria, FLOWing Epigenetic Robots and Systems Lab, France

**Software Engineering Intern**      2017  
Google, Mountain View, CA

**Teaching Assistant for “Intro to Artificial Intelligence”**      2016  
University of Waterloo, ON, Canada

**Entrepreneur**      2011 - 2015  
SpontaneousOrder GmbH, Berlin, Germany

**Visiting Researcher**      2013 - 2014  
University of Ontario Institute of Technology, ON, Canada

**Research Assistant at Core-Unit “BrainImaging”**      2009 - 2010  
University Medical Center, Marburg, Germany

**PRESENTATIONS**

**Resolvable vs. Irresolvable Ambiguity: A New Hybrid Framework for Dealing with Uncertain Ground Truth.** (see above)      2016  
Workshop on Human-Centered Machine Learning at CHI 2016, San Jose, CA.

**Hacking Brain-Computer Interfaces**      2015  
Singularity Meets Self-Improvement (SMSI) Meetup, Berlin, Germany

**SELECTED PROJECTS**

**CrowdEEG**  
Framework to combine machine and human intelligence for the scalable and accurate analysis of human clinical EEG recordings. This is an active research project in the HCI CrowdLab at the University of Waterloo, Canada, led by professor Edith Law.

**3D Simulation of the Human Endocrine System**  
Real-time 3D simulation of the hypothalamic-pituitary-adrenal (HPA) axis, a part of the human neuro-endocrine system. This was done as final project for a course on “Simulation Methods in Physiology and Neurobiology” at the medical school of the University of Marburg, Germany.

**SERVICE & LEADERSHIP**

**Journal Reviewer:** ACM Transactions on Interactive Intelligent Systems (TiiS) Special Issue on Human-Centered Machine Learning (2017)

**Conference Reviewer:** CHI (2017, 2018), CSCW (2018), CHI PLAY (2016)

**Membership:** Association for Computing Machinery (ACM)

**Other:** Advisor for incoming international students (2012), and president of the students council (2013) at Salzburg University of Applied Sciences, Austria