

# Maksim Bolonkin

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## EDUCATION

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### Dartmouth College

2015 — 2021

*Ph.D. in Computer Science*

- Thesis: “Exploiting Group Structures to Infer Social Interactions From Videos”
- Supervisor: Prof. V.S. Subrahmanian

### St Petersburg University, Russia

2013 — 2015

*M.Sc. in Computer Science, Diploma with distinction*

- Thesis: “Application of Image Registration to Superresolution Problem”
- Supervisor: Dr. Alexander Vakhitov

### Lomonosov Moscow State University, Russia

2006 — 2010

*B.Sc. in Applied Mathematics and Computer Science, Diploma with distinction*

- Qualification paper: “Virus Recognition in Regular Texts”
- Supervisor: Prof. Valery Kudryavtsev

## PROFESSIONAL EXPERIENCE

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### Motorola Solutions Inc.

September, 2021—Present

*Sr. Staff Machine Learning Engineer at Embedded Video AI Team*

- Research and development of video analytics solutions.

### Dartmouth College

2015—2021

*Research Assistant in the Dartmouth Safety and AI Lab*

- Performed research projects in social computing, Machine Learning, and Deep Learning
- Wrote, published, and presented research papers

### Facebook, Inc

June—August, 2019

*PhD Engineering Intern at Instagram Well-Being Research Team*

- Built pipelines for data collection and pre-processing
- Developed a model for analyzing end-user video content

### Lomonosov Moscow State University, Tashkent branch, Uzbekistan

*Visiting Lecturer*

- Designed and taught a course on “Optimization and Numerical Tools” for Master students
- Spring 2018, Fall 2019, Fall 2020—2024 (online)

## SELECTED PUBLICATIONS

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- *Maksim Bolonkin, Sayak Chakrabarty, Cristian Molinaro, V. S. Subrahmanian, **Judicial Support Tool: Finding the k Most Likely Judicial Worlds***, 16th International Conference on Scalable Uncertainty Management (SUM 2024)
- *Chongyang Bai, Maksim Bolonkin, Viney Regunath, and V.S. Subrahmanian, **POLLY: A Multimodal Cross-Cultural Context-Sensitive Framework to Predict Political Lying from Videos***, In International Conference on Multimodal Interaction (ICMI '22)
- *Chongyang Bai, Maksim Bolonkin, Viney Regunath, VS Subrahmanian, **Predicting Dyadic Impressions in Group Interaction Videos***, ACM Transactions on Multimedia Computing, Communications, and Applications, May 2022
- *Lezi Wang, Chongyang Bai, Maksim Bolonkin, Judee K Burgoon, Norah E Dunbar, VS Subrahmanian, Dimitris Metaxas, **Attention-based facial behavior analytics in social communication***, chapter in Detecting Trust and Deception in Group Interaction, Springer 2021
- *Chongyang Bai, Maksim Bolonkin, Srijan Kumar, Jure Leskovec, Judee Burgoon, Norah Dunbar, and V. S. Subrahmanian, **Predicting dominance in multi-person videos***. IJCAI'19 The 28th International Joint Conference on Artificial Intelligence.
- *Chongyang Bai, Maksim Bolonkin, Judee Burgoon, Chao Chen, Norah Dunbar, Bharat Singh, V. S. Subrahmanian, Zhe Wu, **Automatic Long-Term Deception Detection in Group Interaction Videos***. ICME'19 The 2019 IEEE Conference on Multimedia Expo (main track and demo track)

## PATENTS

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- *Aleksey Lipchin, Maksim Bolonkin*. 2025. **Crowd Anomaly Detection**. U.S. Patent 12249151, filed on 11/17/2023, issued on 03/11/2025.
- *Venkatramanan Siva Subrahmanian, Sayak Chakrabarty, Maksim Bolonkin, Cristian Molinaro*. 2024. **Judicial Support Tool Computing System**. US 20250111457-A1, filed on 30/09/2024. Patent pending.
- *Aleksey Lipchin, Maksim Bolonkin, Yang Liu, Sergey Veselkov*. 2023. **Stampede Detection**. US 20250046175-A1, filed on 08/01/2023. Patent pending.
- *Aleksey Lipchin, Maksim Bolonkin, Keshav T. Seshadri, Sergey Veselkov*. 2023. **Crowd Anomaly Detection**. US-20240404289-A1, filed on 05/30/2023. Patent pending.