Michal Golovanevsky

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Education:

Ph.D. Brown University, Providence, RI (2021-2026)
   Department of Computer Science, **GPA: 4.0**
   Joint Appointment at the BAI Lab and Singh Lab

B.S. California Polytechnic University, San Luis Obispo (2016-2020)
   Major: Applied Mathematics; Minor: Data Science, **GPA 3.9**
   Dean's list & President's list, graduated *summa cum laude*

Publications: Golovanevsky, M., Eickhoff, C. and Singh, R., 2022. Multimodal Attention-based Deep Learning for Alzheimer's Disease Diagnosis. *JAMIA*, doi:10.1093/jamia/ocac168

Awards and Grants:
- T-32 NIH Predoctoral Biological Data Science Fellowship 2022
- Robert P. Balles Award for Graduating Senior Mathematical Excellence
- NSF Research Grant Award (#1936331)
- William and Linda Frost Research Grant (#201)

Work Experience:

Ph.D. Researcher, BAI Lab & Singh Lab, Brown University, 2021 - Current:
- Work on improving multi-modal algorithms using attention-based deep learning
- Develop machine learning methods for clinical decision support

Data Scientist, Specific Diagnostics, 2020 - 2021:
- Head of the daily maintenance and improvement of the algorithm that classifies growth of bacteria in the presence of a drug for hundreds of bacteria-drug combinations
- Used machine learning to classify whether a bacteria is gram-positive, gram-negative, or yeast, through given sensor data, to increase the speed of the diagnostics processes

Researcher, Cal Poly Statistics Department, 2019 - 2021:
- Developed and expanded R Shiny app for conducting exploratory bioacoustics
- Created a segmentation algorithm for sound files that distinguish between marine animal sounds and background noise
- Developed new techniques for creating interactive graphs using sound wave data

Research Experience for Undergraduates, NSF, Summer 2020:
- Worked with Global Emancipation Network (leading organization in the U.S. in disrupting human trafficking operations using data science) to create an unsupervised algorithm that evaluates the probability that a massage business is involved in illicit activities

Researcher, Amazon Web Services, DxHub Cal Poly, 2020:
- Used image classification via convolutional neural networks to automate the identification and geotagging of key road features such as pedestrian facilities, lanes, and traffic signals to substantially lower the diagnostic cost on a global scale

Software Developer Intern, Convexum, Summer 2018:
- Developed algorithms to help optimize drone landing points for the Convexum's sensors, which prevented the clashing of multiple drones at landing
- Reconfigured the logging system for R&D team: changed log processing system to write logs in JSON format which allowed for an easy transition into the Elastic cloud

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GRE: 170Q 164V 5.5W

Programming Skills:
- Python
- R
- Java
- SQL
- C++
- Scheme
- UML
- Hadoop
- Scala
- Spark
- Jupyter Notebooks

Languages:
- English
- Hebrew
- Russian

Leadership:
- Polygence Mentor (2021-2022)
- Crimson Academy Mentor (2021-2022)
- Jewish Student Group President (2017-2018)
- Association of Women in Mathematics Mentor (2016-2020)