

Yana Bebieva

Postdoctoral Fellow (Geophysics)

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Skills: **Data Science** (quality control and analysis of large geophysical data sets - satellites, models, floats and moorings; time series analysis, predictive modeling, statistical and stochastic analysis, data visualization *AI/computer vision*, feature detection and extraction)
Programming (Matlab/Simulink – 10 years, IDL – 2 years, GitHub, Python)
Physics and Math (Geophysical Fluid Dynamics, Turbulence and Mixing, Boundary Layer Meteorology)
Research and development (excellent written and verbal communication, laser focus, outreach experience)

Education

- 10-2018 **Ph.D.: Geophysics**,
Yale University - New Haven, CT
- 07-2013 **Master of Science: Physical Oceanography, Meteorology and Climate**
Utrecht University - Utrecht, The Netherlands - GPA 4.0/4.0
- 06-2011 **Bachelor of Science: Applied Mathematics and Physics**
Moscow Institute of Physics and Technology - Moscow, Russia - Magna Cum Laude - GPA 4.0/4.0

Work History

- 06-2021 - **Postdoctoral Fellow**
Current Georgia Institute of Technology, Atlanta, GA
- Processed large amounts of *unstructured data*, integrating data from multiple sources
 - Performed big *data analysis* (data cleaning, manipulation, filtering and smoothing, hypothesis test, regression, time series analysis) on large oceanographic data sets
 - Partnered with *stakeholders in agile product development* agencies (RBR Ltd and MRV-Systems) and helped to develop a *long-term vision* for sensor manufacturing activities pertaining to polar ocean in-situ observations to attain world leadership in polar ocean research
 - Served as an expert and provided *scientific guidance* to National Security & Innovation Network's Defense Accelerator on *unmanned underwater vehicles*
- 10-2018 – **Postdoctoral Research and Teaching Scholar**
05-2021 Florida State University, Tallahassee, FL
- Solved geophysical problems using *advanced statistical techniques* (regression/logistic regression, clustering & binning, p-values, confidence intervals, classifications, and optimization)
 - Designed and managed field and laboratory fire experiments and pilots to *test hypotheses*
 - Wrote and published in peer-reviewed journals.
 - Utilized fire behavior models to enhance practical modeling applications and promote wildfire *risk mitigation for stakeholders*
- 07-2013 – **Graduate Research Fellow**
09-2018 Yale University, New Haven, CT
- Processed and analyzed *complex observational data sets* (in-situ and satellite) and identified anomalies, trends and spatial patterns to understand convective processes in the Arctic Ocean
- 06-2015 – **Geophysical Fluid Dynamics Fellow**
09-2015 MIT / Woods Hole Oceanographic Institution, Woods Hole, MA
- Utilized *statistical and stochastic analysis* to solve *turbulent flow* development questions
 - Built tools to automate processes of laboratory data gathering such as *data acquisition* through DAQ hardware and Signal Processing Toolbox
 - Performed *hands-on work* with electrical equipment including service, preventative maintenance

Leadership Experience

03-2021 – **Advisory Associate, Yale Graduate School Alumni Association**

present Yale University, New Haven, CT

- Assisted with the projects to engage Yale Graduate School Alumni
- Played an active role in events held for Graduate School alumni in the South East region

05-2017 – **Pro-bono Consultant, Yale Graduate Consulting Club**

05-2018 Yale University, New Haven, CT

- Assisted a Yale non-profit organization in developing, implementing and testing its marketing strategy; developed *long-term relationships with clients*
- Analyzed competition to evaluate *market penetration*
- Biannually carried out customer-satisfaction surveys & interviews, compiling results into reports
- Strategically advised a client increasing brand exposure by 12%

09-2016 – **Student Representative, Graduate Student Assembly (GSA)**

05-2018 Yale University, New Haven, CT

- Represented 52 students; monthly met with them to regularly align needs and provide feedback
- Identified areas of student concerns within department and reported to Yale Administration
- Collaborated in resolving student's complaints of discrimination on the basis of race, sex, color, religion against a member of the faculty or administration of the Graduate School
- Filed the GSA Childcare Report with the administration calling for sliding scale subsidy for graduate students at Yale childcare centers

Invited Talks and Conference presentations (on 9 published peer-reviewed papers)

MIT/WHOI GFD Summer School (July 2021)

Caltech Environmental Science & Engineering seminar series, Pasadena, CA (January 2021)

UC Davis Earth & Planetary Sciences seminar series, Davis, CA (August 2020)

Imperial College London, London, UK (May 2020)

Ocean Science Meeting, San Diego, CA (February 2020)

Polar Technology Conference, Boulder, CO (March 2020)

Conference on Polar Meteorology and Oceanography, Boulder, CO (May 2019)

Center for Ocean-Atmospheric Prediction Studies, Florida State University, Tallahassee, FL (June 2019)

Rosenstiel School of Marine and Atmospheric Science, COMPASS seminar series, Miami, FL (February 2019)

University of Rhode Island, Physical Oceanography Seminar Series, Kingston, RI (January 2018)

Forum for Arctic Modeling & Observational Synthesis, WHOI, Woods Hole, MA (October 2017)

Hobbies: motorcycling, wakeboarding, making European deserts, house music, travelling