

Anna Yannakopoulos

DATA SCIENTIST · BIOINFORMATICIAN · PHD STUDENT

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Education

Michigan State University

PHD, MAJOR IN COMPUTATIONAL MATH, SCIENCE, AND ENGINEERING

- 3.7 GPA

East Lansing, MI

Aug 2017 - present

Florida State University

BS, MAJOR IN PHYSICS AND COMPUTATIONAL SCIENCE, MINOR IN MATHEMATICS

- *Magna cum laude* (3.8 GPA), Phi Beta Kappa, Dean's List 2013 - 2017

Tallahassee, FL

Aug 2013 - May 2017

Skills

Languages Python, R, C/C++, CUDA, MATLAB, SQL, LaTeX

Software Pandas, NumPy, PyTorch, OpenMP, MPI, Elastic Stack

Platforms High-performance computing, Linux, Windows

Experience

Michigan State University

PHD STUDENT

- Designing novel methods of incorporating low-quality and unconventional data into machine learning algorithms to discover the genetic basis of human health
- Developing natural language processing pipelines to extract biological relationships from unstructured text data using word embeddings
- Managing code standards, software, and high-performance computing environments for a diverse interdisciplinary lab

East Lansing, MI

Aug 2017 - present

Institute for Cyber-Enabled Research

ACRES REU STUDENT MENTOR

- Taught weekly interactive seminars on various technical and professional subjects that were given high ratings in clarity and practicality
- Provided resources, advice, and guidance to undergraduate students undergoing their first research experience
- Advocated for students to administrators to improve the REU program

East Lansing, MI

May 2019 - Jul 2019

University of Notre Dame

RESEARCH ASSISTANT

- Designed and integrated an interactive monitoring module into a distributed high-throughput high-energy physics application
- Interfaced multiple disparate programs and diverse data sources to provide a complete view of the application's behavior
- Chosen as the top student out of 20 to present at a national conference on behalf of the DISC REU program

South Bend, IN

May 2016 - Jul 2016

National High Magnetic Field Laboratory

RESEARCH ASSISTANT

- Created applications to collect, transform, and analyze experimental condensed matter physics data
- Built simulations of the electronic structure of solids
- Wrote drivers to control precision laboratory equipment

Tallahassee, FL

Mar 2014 - Mar 2016

Awards

2017 **Engineering Distinguished Fellowship**, Michigan State University

2017 **Anna Runyan Award**, Florida State University

2013 **3rd Place, Moody's Mega Math Challenge**, Society for Industrial and Applied Mathematics

2013 **National Merit Scholar Semifinalist**, National Merit Scholarship Corporation

2013 **Florida Bright Futures Scholarship**, Florida Department of Education

East Lansing, MI

Tallahassee, FL

New York City, NY

Tallahassee, FL

Tampa, FL

Presentations

Supervised learning methods can efficiently leverage whole-genome molecular-networks for accurate gene classification

C. MANCUSO, R. LIU, A. YANNAKOPOULOS, K. JOHNSON, A. KRISHNAN

Intelligent Systems for Molecular Biology, 2020

Unbiased annotation of single-cell clusters using NLP and the UBERON-Cell Ontology

A. YANNAKOPOULOS, S. HICKEY, A. KRISHNAN

Intelligent Systems for Molecular Biology, 2020

Predicting Alzheimer's Disease-Associated Protein Biomarkers from Multiple Evidence Sources

A. YANNAKOPOULOS, A. BERNSTEIN, I. VEGA, A. KRISHNAN

Research in Computational Molecular Biology, 2019, Washington, DC

Predicting Alzheimer's Disease-Associated Protein Biomarkers from Multiple Evidence Sources

A. YANNAKOPOULOS, A. BERNSTEIN, I. VEGA, A. KRISHNAN

Women in Data Science, 2019, East Lansing, MI

Disease-Gene Prediction Using Multiple Sources of Evidence

A. YANNAKOPOULOS, A. BERNSTEIN, A. KRISHNAN

Intelligent Systems for Molecular Biology, 2018, Chicago, IL

Visualizing and Troubleshooting Massive Science Applications with ELK

A. YANNAKOPOULOS, K. LANNON

Research Experiences for Undergraduates Symposium, 2016, Arlington, VA

Publications

Supervised learning is an accurate method for network-based gene classification

R. LIU, C. A. MANCUSO, A. YANNAKOPOULOS, K. A. JOHNSON, A. KRISHNAN

Bioinformatics 36.11 (June 2020) pp. 3457–3465

Opportunistic Computing with Lobster: Lessons Learned from Scaling up to 25k Non-Dedicated Cores

M. WOLF, A. WOODARD, W. LI, K. H. ANAMPA, A. YANNAKOPOULOS, B. TOVAR, P. DONNELLY, P. BRENNER, K. LANNON, M. HILDRETH, D. THAIN

Journal of Physics: Conference Series 898 (Oct. 2017) p. 052036

High magnetic field calibration using de Haas-van Alphen oscillations in polycrystalline copper

W. A. CONIGLIO, A. F. WILLIAMS, A. YANNAKOPOULOS, A. GROCKOWIAK, S. TOZER

(2016) p. V46.007