JUSTIN PAYAN

Technical Skills

Computer Science
- Skilled in natural language processing, machine learning, and data analysis
- Proficient in Java and MATLAB; intermediate Prolog, R, C++, SQL; basic Python, C, Lua
- Experience writing and presenting research, reading advanced research papers
- Basic experience with Unix, GitHub, pair programming, UML

Mathematics
- Multivariable calculus, linear and abstract algebra, analysis, discrete math, symbolic logic, graph theory

Education

University of Georgia Honors Program – Athens, GA (Expected Graduation May 2017)   August 2013-present
A.B. Cognitive Science
B.S. Mathematics
M.S. Artificial Intelligence (UGA Honors Dual Degree Program)
- 3.95/4.0 GPA and 3.97/4.0 major GPA
- Foundation Fellow Scholarship-Full attendance cost, travel-study/research funding
- National Merit Scholarship, Zell Miller Scholarship, Presidential Scholar, Dean's List

Study Abroad at the University of Edinburgh – Edinburgh, UK   September 2016-December 2016
- Studying machine learning, number theory, network theory, differential equations

Foundation Fellows Spring Travel-Study   March 2014-March 2016
- Studied culture in Havana, Cuba and Buddhist monasticism in South Korea

UGA at Oxford Maymester – Oxford, England   May 2014
- Studied dystopian literature with Dr. David Bradshaw of Oxford's Worcester College

Relevant Experience

HPE Vertica – Cambridge, MA   May 2016-July 2016
- Adding a clustering algorithm to a distributed column-oriented database

Directed Research in Natural Language Processing – Athens, GA   August 2015-present
- Implementing novel keyword extraction algorithm with neural networks and PageRank
- Presented poster at UGA's CURO Symposium in April 2016
- Building deep neural network relation classification system

Robert Bosch Centre for Cyber Physical Systems, IISc – Bangalore, India   June 2015-present
- Developing SVM, ANN, and random forest tool for locating water distribution network leaks
- Predicting pressure in water distribution networks using artificial neural networks
- Submitting paper for publication in ISLT 2016

Seminar on Topological Data Analysis – Athens, GA   January 2015–May 2015
- Analyzed fingerprints using topological data analysis (TDA) package in R
- Introduced novel ANN-TDA hybrid algorithm for fingerprint classification
- Publishing paper (in progress) with classmates and Dr. Noah Giansiracusa

Cortical Architecture Imaging and Discovery Laboratory – Athens, GA   August 2014–May 2015
- Synthesized recent research on interactions between neural oscillations
- Explored applications of information theory and time series analysis to EEG data

Other Interests

UGArden – Athens, GA   August 2014–present
- Organize club outreach to UGA and the Athens community

Morton Theater – Athens, GA   January 2013–present
- Design and execute contracted lighting designs on ETC Element console

Quinta da Bazagueda Organic Farm – Penamacor, Portugal   July 2014
- Milked and herded goats, restored 15th century houses, cultivated tomatoes and peaches

Languages

Chinese - Intermediate oral and written
Spanish - Intermediate oral and written

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