ROWAN LAVELLE

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EDUCATION

Indiana University, Bloomington IN
M.Sc. in Computer Science, Dec 2021
Specialization in Artificial Intelligence and
Machine Learning
- GPA 4.00/4.00
- Relevant Coursework: Elements of
    AI, Knowledge Based AI, Natural
    Language Processing, Machine
    Learning, Bayesian Theory & Data
    Analysis

Indiana University, Bloomington IN
B.Sc. in Computer Science
Aug 2017 - Dec 2020
Minors in Mathematics & Statistics

AWARDS

- Dean's List: Fall 2017, Fall 2019, Spring
    2020, Fall 2020
- Nominated for TA of the year in Spring
    2020 by SICE
- Placed 2nd in the annual SICE
    Programming Competition out of 13
    teams in 2019

TECHNICAL SKILLS

Programming Languages
- Python, R, Java, C, C++, MATLAB, SQL
Data Bases
- PostgreSQL, MongoDB
Libraries
- Scikit-Learn, Tensorflow, Keras, openCV
Operating Systems
- MacOS, Unix, Linux, Windows
Miscellaneous
- LaTex, Git, Arduino

EMPLOYMENT & RESEARCH EXPERIENCE

Computational Biophysics Research Assistant

Indiana University, Bloomington IN (Jun 2020 - Present)

- Establish a system level understanding of the meiotic termination
    network
- Validating a stochastic numerical integration of ordinary
    differential equations model against a deterministic solution
    using Python and parallel computing
- Completing an NSF grant proposal allowing for future research
    involving this process to be systematically and quantifiably
    understood

Indiana University Undergraduate Teaching Assistant

Introduction to Artificial Intelligence (Aug 2019 - Present)

- Assisting in teaching a introductory AI course with heavy Python
    programming components. Topics include search algorithms,
    heuristics, gameplay, bayesian probability, knowledge
    representation and machine learning.
- Holding office hours to work closely with students on the topics
    discussed in class
- Mentoring students throughout the last 4 weeks on their final
    projects

Discrete Mathematics (May 2020 - Jul 2020)

- Assisted in teaching a discrete mathematics course with an
    emphasis on proof techniques, logic, set theory, graph theory and
    probability
- Held office hours to work closely with students on the topics
    discussed in class

Data Science Intern

Popertee, Dublin IE (Jun 2019 - Aug 2019)

- Enabled the startup company to solidify their ability to match
    brands with spaces for short-term retail and experiential
    campaigns across the UK and Ireland
- Analyzed, debugged and improved the existing model to increase
    runtime using psql queries and python scripts
- Created an accuracy report of the model sent to buyers and the
    data provider
- Created a visual internal report for the company, enabling the sales
    team to better understand how the model worked

Computing Research Assistant

Indiana University, Bloomington IN (Jan 2019 - May 2019)

- Analyzed large scale twitter data to study how scientists and
    scholars engage with viral events and how it helps them gain
    larger exposure in the online community
- Created a labeled data set of response tweets to train a deep
    neural network for natural language processing using Python
    libraries tweepy and twarc
- Presented my statistical analysis comparing the average lengths
    of agreeing and disagreeing reply tweets at a symposium