Riley Oest

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EDUCATION

Louisiana State University, *Baton Rouge, LA*
Bachelor of Science in Computer Science
Concentration in Data Science & Analytics
Minor in Mathematics

- Current GPA: 3.2 / 4.0
- Graduation Date: December 2024

Relevant Coursework: Data Structures, Object Oriented Design, Computer Organization and Design, Programming Languages, Operating Systems, Computer Networks, Artificial Intelligence, Applied Deep Learning, Big Data Technologies, Intro to Database Management Systems, Software System Development
Skills/Technologies: Python, Java, C++, Hadoop, PySpark, SQL, AWS

EXPERIENCE

Louisiana State University Mathematics/Finance Department, *Baton Rouge, LA*
Python Programmer (September 2023 – December 2023)

- Engineering an automated algorithmic options trading strategy using technical indicators

Advised by: Kurtay Ognuc (kurtay@lsu.edu)

Louisiana State University Mathematics/Veterinary and Clinical Sciences Department, *Baton Rouge, LA*
Undergraduate Research Assistant (January 2023 – Current)

- Preprocessed raw data from infrared sensors to ensure model accuracy
- Developed an artificial neural network with PyTorch to noninvasively model the internal bone displacement of horse hooves
- Collaborated with a graduate student and postdoctoral researcher in mathematics to write a research paper (Still in progress)

Advised by: Rita Auon (raoun1@lsu.edu), Frédéric Marazzato (marazzato@arizona.edu)

Harvard GAMI (Global Alliance for Medical Innovation), *Baton Rouge, LA*
Python Programmer (August 2022 – May 2023)

- Preprocessed kinematic data acquired from iPad drawings via Test Flight
- Designed algorithms to quantify drawings for machine learning algorithms to distinguish between patient and control groups and presented their accuracy
- Presented weekly progress to the GAMI team

Research Paper: https://www.mdpi.com/2076-3425/11/10/1297
Advised by: Jake Iyer, Ru Li

Louisiana State University Mathematics Department, *Baton Rouge, LA*
Undergraduate Research Assistant (May 2021 – August 2021)

- Preprocessed data acquired from DXA scans from Pennington Biomedical Research Center to predict BMI (Body Mass Index)
- Created a predictive machine-learning model to determine BMI from various body measurements
- Presented weekly progress to a team of both graduate and undergraduate students
- Developed a smartphone app that provided accurate body measurements from pictures accompanied with our BMI model

Research Paper: https://pubmed.ncbi.nlm.nih.gov/36822238/
Advised by: Frédéric Marazzato (marazzato@arizona.edu), Peter Wolenski (pwolens@lsu.edu)