Derrick Wigglesworth

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SKILLS PROGRAMMING



MACHINE LEARNING

Natural Language Processing Neural Networks Naive Bayes (w/ smoothing) Support Vector Machines K-means Clustering Q-Learning, Regression Linear Programming Backtracking Hidden Markov

AWARDS

- Outstanding Grad Student Award, 2017.
- Outstanding Senior Award, 2012.
- Higginbotham Award, 2011.

LINKS

Github:// drwiggle LinkedIn:// drwiggle

EDUCATION

DATA SCIENCE

Online Courses

- CS50: AI with Python
- Relational Databases & SQL

PHD, MATHEMATICS

UNIVERSITY OF UTAH May 2018 | Salt Lake City, UT Thesis: The geometry of $Out(F_n)$ through completely split train tracks

BS, MATHEMATICS BS, PHYSICS

UNIVERSITY OF MARYLAND May 2012 | College Park, MD Magna Cum Laude

PROGRESSIVE LEASING | SENIOR MACHINE LEARNING ENGINEER

Jan 2025 – present | Remote (CO)

• Built and maintained a Python package enabling data science team to quickly and efficiently perform analysis tasks with a high degree of accuracy.

PROGRESSIVE LEASING | DATA SCIENTIST II

Jan 2024 – Dec 2024 | Remote (CO)

- Designed and implemented new ML model to quantify fraud risk on \$200 M in credit applications annually, increasing profits by reducing exposure to risk.
- Provided on-time delivery under tight deadlines in large cross-functional effort to automate manual review processes, providing more consistent decision-making, reduced friction for the customer, and annual cost savings in excess of \$2 M.
- Collaborated with technical teams to implement an updated system for rapid deployment of fraud rules, while creating robust documentation and training team members in new processes.
- Drove gains in efficiencies by building tools and scripts that are well documented and used by team members.

PROGRESSIVE LEASING | DATA SCIENTIST |

Jan 2022 – Jan 2024 | Remote (CO)

- Quickly and efficiently responded to fraud attacks with mistake-free analyses; accurate proposals for mitigation measures; and rapid implementation.
- Worked with tech and database teams to implement of an initiative to reduce costs by \$0.5 M annually.
- Spearheaded effort to modernize tracking of accounts manually identified as fraudulent, which led to the development of several machine learning models and drove gains in efficiencies; reduced duplicated work; and allowed for more repeatable, accurate analyses.
- Built scripts to generate monthly reports on fraud attacks, losses, and mitigation measures.

UNIVERSITY OF ARKANSAS | VISITING ASSISTANT PROFESSOR

Jan 2019 – Aug 2021 | Fayetteville, AR

- Contribution to research advancements in the field of geometric group theory.
 - Collaborated with colleagues to discover and quantify new phenomena concerning the geometric structure of groups, often using Python as an investigatory tool.
 - Published research papers in high quality journals and shared research at local, national, and international conferences.
- Coordinated and taught several classes each semester with minimal supervision:
 - Cultivated relationships with students in class and office hours.
 - Managed deadlines when preparing and grading course materials, including lectures, handouts, worksheets, homework, projects, tests, and quizzes.
- Service to department by supervising undergraduate research on graph theory and volunteering with Math Olympiad for Elementary and Middle School students.