Nishad Wajge

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TECHNICAL SKILLS

- **Languages:** Python, Java, C, R, RStudio, Bash, MATLAB
- **AI/ML Tools:** TensorFlow, Seaborn, Matplotlib, NumPy, ggPlot2
- **Technologies:** IBM Engineering Workflow Management, Jenkins, Maven, Excel (VLookup, Pivot Table, Macros)

EDUCATION

University of Maryland, College Park **Expected: 2026**

- BS Computer Science (Concentration: Machine Learning), Minors in Business Analytics and Statistics
- Relevant Coursework: Algorithms, Organization of Programming Languages, Data Science, Discrete Structures, Computer Systems, Object-Oriented Programming, Applied Probability & Statistics I & II, Multivariable Calculus, Linear Algebra, Microeconomics, Business Statistics, Game Theory & Economics

EXPERIENCE

Internal Revenue Service, U.S. Department of the Treasury **Jan 2024 – Present**
Software Engineer Intern Washington, DC

- Assisted in modernizing systems and business process in the Division of IT's RRP Fraud & Analytics Branch
- Deployed CI pipeline upgrade from IBM Engineering Workflow Management to Gitlab and Maven
- Studied government practices implemented to identify fraudulent and criminal activity in taxpayer data
- Researched best practices, identify automation opportunities, attend executive meetings, and maintain SharePoint sites
- Responsible for requirement tracking, data analysis, change management, and stakeholder engagement

Institute for Advanced Computer Studies, University of Maryland[1] **Oct 2023 – Present**
Undergraduate Research Assistant College Park, MD

- Designed an algorithm using Open AI's weak-to-strong learning and AdaBoost for natural language processing tasks
- Constructed a self-attention model with encoding and decoding sequences that optimizes the importance of words
- Researched models that recreate the accuracy of supervised datasets without being computationally expensive

HEC Lausanne[2] **Jan 2021 – Oct 2023**
Research Intern Remote

- Implemented a multi-agent reinforcement learning decision-making algorithm to optimize playing strategy for golfers
- Developed a novel decentralized partially observable MDP for turn-based stochastic shortest path problems
- Integrated proprietary Professional Golf Association's ShotLink database containing 600,000+ golf shots

PROJECTS

Using Model Classification to Detect Bias in Hospital Triaging[3] **Jun 2022 – Sep 2023**

- Built machine learning models to predict the quality of patient treatment for different demographics with 76% accuracy
- Applied classification task techniques (KNN Classifier, F1-Score, Random Forest) and analyzed data using SHAP values

Campaigns to Overcome Golfers' Loss-Averse Cognitive Bias[4] **Jun 2022 – Aug 2023**

- Conducted survey and experiments to reveal loss-averse bias in various demographics of golfers
- Implemented statistical techniques and inference tests to uncover relationships in participant data

PUBLICATIONS AND HONORS

- (1) Submitted to Neural Information Processing Systems (NeurIPS) Conference. 2024
- (2) Submitted to the INFORMS Management Science Journal. 2023
- (2) Shortlisted for the MIT Sloan Sports Analytics Conference. 2024
- (2) Only high school student to present at INFORMS Annual Meeting, attended by 5,500+. 2022
- (3) Annals of Biomedical Science and Engineering. 7: 24-30, 2023
- (3) Stanford University School of Medicine JUST Health Journal. 5: 13-16, 2022
- (4) International Journal of High School Research. 6, 5: 93-97, 2024
- 2x Presidential Volunteer Service Award recipient for 200+ hours

ACTIVITIES

University of Maryland Club Golf **Jan 2024 – Present**
Social Chair & Executive Board Member College Park, MD

- Coordinate with other clubs to host events and socials and act as a liaison for alumni and prospective club members
- Oversee and manage all social media platforms, including posting practice and tournament highlights