Patrick King

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Skills

Languages Python, SQL, R, C++
Libraries Pandas, NumPy, scikit-learn, Matplotlib, Seaborn
Tools Power BI, PostgreSQL, Git/GitHub, Excel
Certificates NVIDIA: Fundamentals of Deep Learning (Nov 2024)

Experience

Workshop Coordinator **Fall 2025 - Present**
Data Science and Informatics Club

- Organized and led hands-on workshops to develop core data science and programming skills among students
- Developed learning materials, guided peers through coding exercises, and supported members in applying concepts to real projects
- Coordinate with other officers to expand engagement and foster a growing community of data scientists

Projects

NBA Lineups Analysis Dashboard

- Built an end-to-end data pipeline analyzing NBA lineup performance based on player combinations
- Pulled game data from the NBA API, processed play-by-play data into lineup-based “stints”, and stored results in PostgreSQL
- Designed SQL views to calculate player and team metrics such as net rating, assist-to-turnover ratio, and impact
- Built an interactive Power BI dashboard to visualize lineup efficiency and highlight best-performing player combinations

Predictive Model for Evaluating Transfer Portal Basketball Players

- Developed a statistical model (80% accuracy) predicting the success of NCAA basketball transfers
- Managed the full pipeline: data collection, cleaning, feature engineering, model training, and evaluation
- Applied correlation analysis, logistic regression, and random forest classifiers to identify key predictive metrics

Safe Pathfinding with Voronoi Diagrams and Dijkstra’s Algorithm

- Built a computational geometry program to compute safe and efficient routes while avoiding high-risk areas
- Implemented Voronoi diagram generation to partition maps into navigable regions and used Dijkstra’s algorithm for optimal pathfinding
- Collaborated on integration of risk mapping and UI components

Education

Bachelor of Science in Data Science, *University of Florida* **Fall 2024 - Spring 2027**
Gainesville, FL *4.0/4.0 GPA*
Relevant Coursework:
STA 3100, MAS 3114, MAD 2502