Abdoul Wahab Toure

github.com/abd2re abd2re.github.io linkedin.com/in/abd2re ab.toure@mail.mcgill.ca +1-418-573-8817

Education

McGill University Current GPA: 4.0/4.0

B.A. Computer Science Major, Statistics Minor *Aug 2024 - Dec 2027*

- **Relevant courses**: Discrete Structures, Algorithms and Data Structures, Software Systems, Computer Systems, Principles of Statistics I & II, Linear Algebra, Calculus I.
- **Honors**: Hugh Brock Scholarship, Qualified for ICPC North America 2024
- **Extracurriculars**: ColorStack, Competitive Programming at McGill, McGill Students' Trading Society, CodeJam.

Experience

Baamtu Technologies Dakar, Senegal

Data Science Intern *Apr 2022*

- Implemented data exploration techniques using Jupyter Notebook, NumPy, and Scikit-Learn to analyze text corpus similarities, resulting in a **30%** improvement in text classification accuracy.
- Developed text vectorization and language classification algorithms in Python, enabling accurate language detection for a medical chatbot across local languages.

Projects

School's Print Management Service | *Python (Flask), HTML/CSS, Javascript, Print.js, PostgreSQL* *Jun 2024*

- Engineered a full-stack web application for **40+** teachers and staff, streamlining print job management and reducing print-related administrative tasks by **10** hours per week.
- Leveraged Print.js API to create an intuitive print dialog interface, improving user experience and reducing print setup time by **70%** for complex print jobs.
- Conducted user interviews with 4 teachers and staff, implementing 2 new features including a paper quota tracker, resulting in less paper waste.
- Optimized asynchronous operations in the queue system, enabling simultaneous processing of multiple print jobs.

Research in Applied Mathematics | *LaTeX, Pandas, Matplotlib* *Aug 2023*

- Conducted comprehensive analysis of search algorithms for Connect-4, authoring a research paper that provided insights into optimal AI strategies for board game applications.
- Implemented and tested 3 variations of the Minimax algorithm across 4 different grid sizes, identifying optimal configurations that reduced computational time.

OrientationSN | *Python, Jupyter Notebook, Streamlit, NumPy, Scikit-Learn, Pandas* *Aug 2022*

- Developed an API to find and filter more than **80** universities and programs in Senegal based on semantic indexing using TF-IDF (term frequency–inverse document frequency).
- Scraped and sanitized more than **300** program descriptions, implementing a similarity algorithm that achieved 82% accuracy in program categorization.
- Designed and implemented a responsive web interface featuring real-time search and interactive visualizations, showcasing the API's capabilities and securing first place in the school hackathon.

Skills

Programming languages: Python, Java, C, JavaScript/TypeScript, HTML/CSS, LaTeX
Frameworks and Tools: Git, React, Node.js, Flask, FastAPI, Bootstrap, PostgreSQL, Docker, Postman
Libraries: Pandas, NumPy, Matplotlib, SqlAlchemy
Languages: English (Native), French (Native)