Abdoulay Lashley

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EDUCATION

University of Maryland, Robert H. Smith School of Business — **College Park, Maryland**
Master of Science in Information Systems, GPA: 3.6 — August 2024 – December 2025

- **Relevant Coursework:** Data Mining & Predictive Analytics, Designing Generative AI Systems, AI for Business Applications, Data Processing, Analysis & Modeling, Database Management, Causal Inference & A/B Testing, Data Visualization, Cloud Computing, Project Management, Industry Practicum
- **Terrapin Scholar** – University of Maryland, 2024–2025
- **Dean's List** – 2020–2021, 2022–2023, 2024–2025

University of Maryland, A. James Clark School of Engineering — **College Park, Maryland**
Bachelor of Science in Bioengineering, GPA: 3.2 — August 2018 – May 2023

TECHNICAL SKILLS

Programming & Data Processing:
Python, R, SQL, JavaScript, JSON, Hadoop, Pig, Hive, Spark, MapReduce, PySpark MLlib, Spark Streaming, Node.js, Express.js
Machine Learning & Statistical Analysis:
AI/ML, NLP, LLM, OpenAI API, Pandas, Seaborn, Scikit-learn, Regression & Classification Techniques, Frequent Pattern Mining, Cluster Analysis

Business Intelligence & Data Visualization:
Power BI, Tableau, Google Analytics, React.js, Leaflet.js
Databases & Cloud Technologies:
SQL, NoSQL, MySQL, MongoDB, Neo4J, Snowflake, BigQuery, AWS, Microsoft Azure, Google Cloud Platform (GCP)
Project & Product Management:
Agile, SCRUM, Risk Management, QA, Product Management, JIRA, Confluence, Microsoft Project, Figma (UX/UI) Design

Business Strategy & Communication:
Business Strategy, Stakeholder Communication, Cross-functional Collaboration, Prioritization
Software & Tools:
HTML, CSS, JavaScript, XML, GPT-5, Jupyter, VSCode, Git/GitHub, SAP Products, Microsoft Office, Google Applications, Google Colab, Lucidchart, Apache Hadoop, Apache Spark, Spark GraphFrames, Kafka, Sqoop, OpenCageData API, Geolib, REST APIs

WORK EXPERIENCE

L'Oréal USA — **Somerset, New Jersey**
Industrial Quality CO-OP – *Product Launch, Data Visualization & Analysis, Process Improvement* — June 2023 – August 2024

- **Designed** and **rolled out** eCLAIR digital product, building consensus across QA, operators, and engineering teams, **reducing micro-contamination incidents by 20%**.
- **Digitized 25 production forms**, **streamlining accessibility** for line operators and **reducing documentation errors by 30%**, enhancing **operational efficiency** and **regulatory compliance**.
- **Built** Power BI dashboards that **boosted efficiency by 15**% and **cut downtime by 10%**, presenting insights to **senior leadership** to align stakeholders on data-driven decisions.

PROJECT EXPERIENCE

Veteran Sentiment Analysis Platform – Deloitte GPS | *AWS, Python, NLP, Power BI* — January 2025 - December 2025

- **Led a Deloitte-sponsored MSIS Capstone** to develop a **cloud-based NLP** system analyzing **100K+ Veteran social posts** to identify key themes in mental health, financial well-being, and reintegration.
- **Built** an end-to-end **AWS data pipeline** integrating **S3**, **Lambda**, **Glue**, and **OpenSearch** to automate ingestion and classification, enabling **real-time sentiment** tracking across **10+ thematic categories**.
- **Delivered Power BI** dashboards and LLM insights that enhanced Deloitte GPS's ability to advise Veteran Service Organizations on outreach strategies, improving **interpretability** and **decision accuracy by 25%**.

LAPD Crime Prediction & Analysis – *PySpark, Random Forest, MLlib* — May 2025

- **Built** a scalable PySpark pipeline to analyze 2M+ crime records (2023–2025) for type **classification**, **hotspot detection**, and **spatiotemporal pattern clustering**.
- **Achieved 88.79% top-5 accuracy** using a **Random Forest model** tuned with **CrossValidator** and **grid search**, integrating **StringIndexer**, **OneHotEncoder**, and **VectorAssembler** for preprocessing.

SHYFT Blockchain Business Case – *Solidity, Ethereum, Smart Contracts, Web3* — May 2025

- **Designed** a blockchain-enabled MVP for SHYFT, a decentralized logistics solution leveraging smart contracts for supply chain transparency and tokenized data exchange.
- **Deployed** a working ERC-20 token prototype using **Solidity** and **HTML/CSS front-end integration**, ensuring secure and traceable transactions.

- **Led** strategic planning around token utility, governance, and ecosystem engagement for cross-platform **interoperability** and **trust assurance**.

Spotify Product Personalization & AI Recommendations – *Product Strategy & Data Analytics* May 2025

- **Conducted product strategy analysis** on Spotify's AI-driven personalization features, identifying key metrics to enhance user retention and content discovery.
- **Proposed** data-driven recommendations to optimize recommendation systems using hybrid collaborative filtering and **user clustering insights**.
- **Designed UX mockups** and **KPI dashboards** demonstrating how AI integration can **improve** engagement across **global markets**.

Capital Area Food Bank AI Assistant – *React.js, Node.js, OpenAI API, OpenCageData API, JavaScript, JSON* April 2025

- **Led end-to-end development** of a multilingual AI chatbot for food-insecure neighbors in the **DC metro area**, enabling users to locate and filter **500+ food resources** by ZIP code or location, while addressing barriers like confusing maps, language gaps, transportation access, service requirements, and social stigma using **GPT-3.5** and **geospatial intelligence**.
- **Built** a responsive dark-mode front-end with React.js featuring map-based food bank pins and interactive site cards displaying address, open hours, and service information.
- **Developed** backend RESTful APIs with Node.js/Express.js and OpenCageData API, achieving **>90% match accuracy** and **reducing query latency by 40%** by optimizing JSON schema design and geolocation handling.
- **Cleaned and unified 6+ CAFB datasets** using JavaScript to merge appointment requirements, food format, cultural services, and transportation access metadata into a streamlined structure.
- **Enhanced accessibility** with a custom TranslationService supporting **dynamic English-Spanish language switching** and fallback to GPT for non-location-based queries, significantly improving engagement among **Spanish-speaking users**.

Buccal Pulse Oximeter to Overcome Racial Biases – *Python, MATLAB, Arduino* May 2023

- **Led** a team of five to develop a **buccal pulse oximeter**, reducing **racial biases** in oxygen saturation measurement by **20%** using advanced **sensor technology** and **signal processing**.
- **Developed and optimized** data analysis in **Python and MATLAB**, achieving **95% measurement accuracy** while maintaining **production costs under $40 per unit**.
- **Demonstrated** the prototype to **20+ clinicians and engineers**, validating its **effectiveness in clinical trials**.

AFFILIATIONS & ADDITIONAL INFORMATION

- **Member –** Black Engineers Society, National Society of Black Engineers (NSBE)
- **Languages –** Fluent in English and Wolof; basic proficiency in French