Allen Daniel Sunny

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Experience

University of Maryland College Park — College Park, Maryland
Graduate Research Assistant — *Sept. 2023 – Present*
- Designed the data architecture for the Career Services team at the Smith School of Business.
- Developed an automatic reporting system using Power BI.

Kantar Analytics — Bangalore, India
Data Scientist / Associate Data Scientist — *Aug. 2018 – Jan. 2023*
- Led development of Walmart's pricing and promotional system across global stores.
- Designed Walmart Canada's price anomaly engine to detect e-commerce errors.
- Built a generative product description engine using Eleuther AI's GPT-NeoX.

Education

University of Maryland, College Park — College Park, USA
Master of Information Management — *Aug. 2023 – July 2025*

Visvesvaraya Technological University — Bangalore, India
Bachelor of Engineering in Computer Science and Engineering (with Distinction) — *Aug. 2014 – July 2018*

Research Experience

Master's Thesis – Tech Policy Lab, University of Maryland — *College Park, USA*
- Conducting thesis research at the Tech Policy Lab under Professor Ido Sivan-Sevilia. — *Jan. 2025 – Present*
- Exploring procurement agility, explainability, and public trust in government AI systems.
- Building and testing a prototype for citizen-centered decision automation.

Systemic Risk Project – Oxford AI Policy Group — *College Park, USA*
- Collaborating with the Oxford AI Policy Group to monitor foundational model usage. — *Feb. 2024 – Apr. 2024*
- Built a global scraping pipeline to track AI model adoption trends across sectors.

FORMAL Lab – FOundations of Reliable MAchine Learning — *College Park, USA*
- Working under Prof. Sanghamitra Dutta on explainability methods for LLMs. — *Sept. 2023 – Dec. 2023*
- Building open-source tools for feature attribution and interpretability.

Kantar Innovations (R&D) — *Bangalore, India*
- Led R&D initiatives in explainable AI and time-series modeling. — *Mar. 2020 – Jan. 2023*
- Developed enterprise-grade reusable components for large-scale ML deployment.

Technical Skills

Languages: R, Python, TSQL, HQL, VBA, SQL (Postgres), JavaScript, HTML/CSS, C/C++
Frameworks: Apache Spark, Apache Druid, Hadoop, MongoDB, Sphinx, React, Node.js, Flask
Developer Tools: Anaconda, RStudio, Git, Google Cloud Platform, Power BI, Tableau, VS Code, Visual Studio, Excel

Publications / Papers

- **Disease Diagnosis using Machine Learning** — classification techniques applied to patient symptom data.
- **StructuralDecompose:** An R package for seasonal decomposition of time series.
- **TangledFeatures:** An R package for feature entanglement visualization.
- **Quantitative Research Methods:** Exploring the importance of explainability in AI using quantitative methods.
- **Qualitative Research Methods:** Exploring the importance of explainability in AI using qualitative methods.
- **RADAR – Retrieval-Augmented Data Analysis and Representation:** A RAG-powered LLaMA 3.1 8B system for generating explainable data visualizations from natural language. Code
- **Dark Pattern Analysis:** A browser extension that detects deceptive UX patterns using DOM inspection and LLMs. Code