MELISSA D. DUELL, PhD

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SUMMARY

Strategic problem-solver skilled at improving operational excellence and data-informed decisions through AI/analytics with experience in domains ranging from transport systems to international conflict to HR. Adept at structuring complex problems, leading cross-functional initiatives, and breaking down communication silos. Passionate about continuous growth.

PROFESSIONAL EXPERIENCE

U.S. OFFICE OF PERSONNEL MANAGEMENT | 09/2021 – 09/2025
Talent Acquisition Analytics Group (TAAG), Human Resources Solutions (HRS)

Supervisory Program Analyst, Branch Manager (GS-14) | 12/2022 – Present (remote)
- As AI Incubator Director, led establishment of fully remote multi-disciplinary team of 16 for experimenting with applied AI in federal HR. Collaborated with domain experts to prioritize AI use cases, refine requirements, and develop experimental solutions.
- End to end oversight of application-based and research-based AI projects. In 2024, delivered two web apps, USA Class (AI-assisted position description generator) and HRS Chat (GPT-based chatbot), iteratively developed based on feedback.
- Research projects included support for USAJOBS website (search optimization, automated job tagging, user segmentation), document parsing, and automated resume review.
- Led AI communications for org to audiences of all levels, ensuring clear messaging on AI initiatives, including AI workforce training for 200+ employees.
- As Product Owner, managed customer data requests for complex federal hiring datasets. Established processes for responding to requests for data and reports by clarifying objectives and implementing agile workflow methods.

Program Analyst (Data Analytics), Data Scientist (GS-13) | 09/2021 – 12/2022 (remote)
- Product Owner for data science team. Provided matrixed data support to govt hiring IT systems. Built expertise in the federal hiring process to support data-driven insights and machine learning applications.

U.S. DEPARTMENT OF STATE | 12/2016 – 09/2021
Bureau of Conflict and Stabilization Operations

Team Lead, Foreign Affairs Officer (GS-13) | 09/2019 – 09/2021 (Washington DC/remote)
- Led Instability Monitoring and Analysis Platform (IMAP), coordinating analytics for conflict risk assessment; built suite of interactive dashboards for real-time conflict monitoring.

- Developed and deployed the first predictive analytics model at the State Department for policy using structured data to estimate risk of violence against civilians.
- Led U.S. engagement in the Complex Risk Analytics Fund, securing $1.2M in funding to support early warning conflict monitoring and data collection.
- Special detail supporting Operation Allies Welcome, developed and managed in house IT system built in Google Sheets/Forms for arrival of Afghan evacuees.

Conflict Data Specialist, Foreign Affairs Officer (GS-13) | 12/2016 – 09/2019 (Washington DC)
- Delivered conflict risk assessments for high-level stakeholders, including the White House; produced 100+ data-driven reports, briefings, and visualizations supporting policy-makers.
- Led grant monitoring and evaluation for $5M conflict data collection program.

UNIVERSITY OF NEW SOUTH WALES | 07/2011 – 12/2016
Research Centre for Integrated Transport Innovation

Postdoctoral Research Associate | 01/2015 – 12/2016 (Sydney)
- Led technical research on transport planning models, managing multi-member teams and delivering nine journal/conference publications plus reports for city sponsored projects. Developed software tools in Python and C++.

Graduate Researcher | 07/2011 – 12/2014 (Sydney)
- Developed algorithms for dynamic traffic modeling, winning six awards for technical excellence. Teaching assistant and supported course development for transport program.

EDUCATION

Ph.D., Transport Engineering, University of New South Wales, 2015
B.S., Civil Engineering, University of Texas at Austin, 2011
B.A., Plan II Honors, University of Texas at Austin, 2011

SKILLS
- **Problem-Solving & Decision Support:** Strategic planning, data wrangling, data-driven insights, risk assessment.
- **Execution & Accountability:** Agile project management, workflow optimization, process improvement.
- **Stakeholder Management:** Cross-functional collaboration, executive briefings, intra- and inter- organization coordination.
- **Data Analysis & AI:** Applied machine learning, predictive modeling, data visualization, dashboard development.
- **Technical Tools:** GenAI tools such as ChatGPT, Python, SQL, Power BI, Tableau, Azure Databricks, ArcGIS, Miro, Excel, SharePoint, Powerpoint Guru.