



Volgenau School of Engineering

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**Jim Baldo**  
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**Presentation Abstract**

This talk aims to provide a vision of a data analytics program that graduates the next generation of data scientists and engineers with a skillset that is based on a broad foundation of applied mathematics, computer science, and statistics. Graduates of this program will fulfill professional and research positions that provide solutions to new emerging problems, such as big data in engineering and applied sciences. This vision blends a core set of data analytics courses, focused area courses, interdisciplinary subjects, working in a cross-disciplinary team, partnerships with industry, course industry sponsored projects, and access to state-of-art data engineering and science workbench and computing resources. An implementation plan for the vision will be presented that proposes a schedule and set of key metrics for tracking the plan's progress and milestones.

**Biography**

James Baldo is a senior associate at Armatus Solutions providing data analytics, cloud migration, and solution architecture support for US government agencies and is an adjunct professor at George Mason University in the Volgenau School of Engineering. James' engineering career has provided him with a broad foundation of knowledge and experience in engineering systems responsible for detecting, identifying, tracking, and predicting the behavior of objects based on multiple sources of data. The environment that James works in has been greatly affected by big data which has resulted in utilizing new technologies and analytical methods. James' engineering team leadership skills have been instrumental for interacting with customer needs and expectation as well as managing, galvanizing, and synergizing teams of talented engineers. James' experience as a practicing engineer has provided him with a great appreciation of educating engineers with a solid foundation in mathematics, science, statistics, and engineering. As an instructor James packages theory and practice in his courses to prepare students for addressing real world problems. James holds a BS in Chemistry, MS in Chemistry, MS in Computer Engineering, and Ph.D. in Information Technology/Software Engineering.