Alexander T. Graf, PhD

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Google Scholar goo.gl/RvzxGs - LinkedIn goo.gl/Npw8cw – gitcv goo.gl/w7mMmR

Experience

11-16 to pres. General Electric Digital – Sr. Staff Data Scientist

- Lead IIoT enterprise level analytic/solution development for internal and external clients
- Collaborate and co-innovate with clients on the analytic aspects of business goals
- Deep involvement with many domains including but not limited to agriculture, military aviation and ground transport, food and beverage manufacturing, nuclear and solar power production using a variety of methods new and old
  - Nuclear and solar power maintenance optimization
  - Fault mitigation of industrial assets in microchip manufacturing
  - Beef cattle health risk monitoring
  - Root cause analysis for F-18 hypoxic pilots
- Technical sales support for new customer acquisition and at-risk existing customers

02-16 to 11-16 General Electric Digital – Interim Manager of Data Science

- Lead the vision and strategy for group success
- Develop and maintain relationships with key internal stakeholders to ensure successful productionization of data science solutions
- Manage expectations and guide careers of team members
- Technical/Professional mentoring and delegation of project work
- Collaboration to introduce and standardize data science tools
- Pursued and received promotion for 2 well deserved team members

06-13 to 02-16 General Electric Digital – Staff Data Scientist

- Unsupervised anomaly detection on multivariate time series with feature importance for commercial jet engines (Graphical Granger Causality)
- Domain adaptation between mature fleet and new product test bench data for commercial jet engines (MMDE and Tradaboost) used for optimizing contract service agreements
- Bias correction and sampling methods for general application (re-sampling methods)
- Classification of fault type for Army transport vehicles (DPGMM)
- Code and product development, internal white paper composition and adaptation of various lower level off-the-shelf analytics. (e.g. incorporation of ADMM into an L1 solver)

07-09 to 08-12 Lawrence Livermore National Laboratory (LLNL) – Postdoctoral Scientist

- X-ray probing of ultra-fast processes in irradiated crystals and organic samples
- Laboratory development of diagnostics relevant to astrophysical processes

12-05 to12-08 MIT Plasma Science and Fusion Center – Visiting Graduate Student / RA

Education

12-08 **Ph.D. (Plasma Physics)** University of California at Davis (GPA 3.8)
12-05 to 12-08 Visiting Graduate Student at the MIT Plasma Science and Fusion Center
12-04 **M.Sc (Physics)** University of California at Davis
06-00 **B.Sc. (Physics)** University of North Florida

Patents

- (Submitted) Methodology for Data Driven Identification of Optimized Asset Strategy Opportunities Across Functional Location Hierarchy
- (Submitted) Methodology for the Development and Deployment of Digital Asset Strategies
- (Filed) Predicting Fatigue of an Asset that Heals (app # : 20200210859)
- A Framework for Unsupervised Anomaly Detection on Industrial Time Series Data (US15/474,563)
- Creating Predictive Damage Models by Transductive Transfer Learning (US20170300605A1)