STEPHANE DAMOLINI

Boston, MA
www.damolini.com

Data Scientist and Engineer with 11 Years of Experience Providing Data-Driven Solutions

- Python + Machine Learning
- Optimization & Automation
- Risk Assessment
- Signal Processing
- Numerical Modeling
- Software Development

Data scientist with a demonstrated ability to process critical datasets, optimize engineering workflow, and deliver groundbreaking solutions to the power industry.

EXPERIENCE

2016 – pres. **JENSEN HUGHES** Boston, MA
Principal Engineer and Data Analyst

Data Modeling and Automation

- Created the Data Automation & Machine Learning (DAML) initiative, promoting efficiency throughout the company by automating tedious and repetitive tasks, and by leveraging machine learning and the latest technologies to increase our edge over competitors.
- Led numerous Probabilistic and Risk Assessment projects to compute Core Damage Frequencies of nuclear reactors in USA, South Korea, and France.
- Promoted to Subject Matter Expert and Sponsor of Numerical Modeling Program ANSYS.

Data Processing and Optimization

- Authored a VB.NET time and frequency domain signal processing software in a team of four. This program performs advanced Fourier based operations to time series and response spectra. Now used by US and foreign utilities with $200k+/year of revenue.
- Developed a Python package to enhance the capabilities of highly specialized finite element program ACS-SASSI by adding custom functions to efficiently automate, verify, and review models. This streamlining resulted in a 100%+ revenue increase.
- Created an EXCEL VBA signal processing program designed to import, process and export millions of accelerograms. This program performs advanced mathematical conversions and statistical operations including deterministic or median-centered clipping. It revolutionized the analysis pipeline throughout the company and increased our range of capabilities.
- Wrote batch files to run analytical models automatically, optimizing utilization and user efficiency. Set up remote access to company's supercomputer, saving the company $100k+.
- Beta-tested and improved the in-house probabilistic event tree software.

2009 – 2016 **STEVENSON & ASSOCIATES** Boston, MA
Lead Engineer & Analyst

- Developed 10+ state-of-the-art numerical models of buildings and phenomena, including a revolutionary adjustable resolution 3D model of a nuclear plant saving the client $150k.

EDUCATION

2008 – 2009 **MASSACHUSETTS INSTITUTE OF TECHNOLOGY** Cambridge, MA
Master of Engineering, GPA: 5.0/5.0

2006 – 2008 **ECOLE SPECIALE DES TRAVAUX PUBLICS** Paris, FR
Master of Science, Ranked 4th/500

RELEVANT SKILS

- Python (Pandas, Numpy, Keras, Tensorflow, Scikit-Learn, Scipy, Matplotlib, Seaborn, Flask)
- SQL
- Excel VBA + VB.NET
- Atlassian + GIT

OTHER

US Green Card and French citizen.
Full independent coursework and research papers available at cv.damolini.com.