Jared S. Goldsmith

4603 Santa Monica Ave. | San Diego, CA 92107

781-929-9555 | jared.goldsmith@gmail.com

https://github.com/j-goldsmith
https://j-goldsmith.github.io/portfolio/

Software developer with 12 years of professional experience focused on data engineering and time series data. Recent work includes Green Button data exchange, electricity usage predictive modeling, and a Masters in Data Science & Engineering from UCSD. Current technical interests include event-based architectures, machine learning to augment decision making, and visualizing data and dataflow.

Technical Proficiencies

- **C#** — NHibernate, Dapper, Unity DI, Automapper, .Net MVC, Telerik
- **Python** — pandas, matplotlib, sklearn, pyspark
- **Javascript** — D3, Node.js, Express, AngularJS
- **PHP** — Kohana, Wordpress
- **Datastores** — SQL Server, PostgreSQL, MongoDB, S3, Neo4j, Timescale
- **Academic Modeling Experience** — *Time Series:* ARIMA, LSTM
Unsupervised: PCA, KMeans, LOF
Supervised: Random Forest, Gradient Boosting
- **Development Tooling** — Git, Teamcity, Airflow

Professional Experience

GPT, Inc

Mission Viejo, CA
http://greenplanet.tech

Lead Software Developer **2011-Present**

The energy industry is littered with archaic data formats, inconsistent delivery mechanisms, and complex pricing and tariff rules. GPT simplifies doing business for energy retailers, community-choice aggregations, and their associated businesses by managing that complexity. Our data pipeline includes approximately 70 heterogenous sources, several hundred data models, and access via web service, web UI, and flat file exchange.

- Responsible for system's ingest and egress of data, reporting directly to company Principals
- Define system data requirements, working with clients
- Develop and maintain data exchange architecture between providers, such as public utilities, and clients, collaborating with stakeholders of varying technical backgrounds.
- Create predictive models for electricity and natural gas usage
- Led early Green Button adoption effort; establishing GPT as one of the first Green Button certified companies in the country
- Instituted version control across the company's codebase. Led company version control training.

Voltaire & Bacon Productions, LLC

San Diego, CA

Independent Contractor, Software Developer 2009-2011
Contract work focused on web development, SaaS, and quality tech consulting.

Client Sample

- Sacred Land Film Project - Berkley, CA
  Wordpress-based CMS for presenting film and activism work
- Ikun Energy - Anchorage, AK
  Assisted with datacenter migration
- Gas & Power Technologies - Mission Viejo, CA
  Database design, custom reporting, data integration between NOAA and power plant data
- Precision Athletic Training - Boston, MA
  Developed a custom web app for managing hundreds of athletic trainers. System remains the technical backbone of the company 8+ years later.
- CalCPA Protect Plus - San Mateo, CA
  Developed a web-based insurance quote generator

Reece Computer Systems

Half Moon Bay, CA
Software Developer & Consultant 2006 – 2009

Main point of contact for clients, covering IT needs onsite and remotely. Development work focused on application integration, web development, scripting, and database design.

Colby College Computer Science Department

Waterville, ME
Teaching Assistant *2003-2005*

Assisted professors with introductory Computer Science classes. Hands on teaching experience.

Education

University of California, San Diego

Masters of Advanced Study, Data Science & Engineering, 4.0 GPA *2016 - 2018*
Jacobs School of Engineering, La Jolla, CA

Program included regular team assignments requiring close collaborative to build complete machine learning pipelines.

- Machine Learning, Distributed Data Analysis, Data Visualization, Data Integration
- Capstone Project, “Transient State Detection in Machine Data”.
  Using millions of gas turbine sensor readings, a combination of PCA, creative time partitioning, and clustering, our group generated machine load profiles and machine similarity measures. We built classifiers for different types of performance outliers including a valuable subset known as transient states. Utilizing these findings, we built a user interface for domain experts to efficiently create a labeled dataset for future predictive modeling.

Colby College

BA, Computer Science, Cum Laude *2001 – 2005*
Minor in Creative Writing
Waterville, ME

Colby College offered a challenging liberal arts curriculum, supplementing my technical focus with a strong interdisciplinary foundation and diversity of thought.

- Relational Databases, Machine Learning and Data Mining, Analysis of Algorithms, Computer Graphics and OpenGL.
- Senior Thesis "Predicting Significant Ocean Wave Heights Using Genetic Algorithms.”
  A brief survey of new neural net models for predicting ocean wave heights. Using similar inputs, attempt to replicate the results using Genetic Algorithms.