**Justin Gosses**

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***Data Science, Data Visualization, and Web Developer***

Twelve years experience as a data scientist, geoscientist, and software engineer. Has successfully delivered projects in the machine learning, artificial intelligence, data visualization, and software engineering spaces working with clients in domains as diverse as geology, finance, human resources, and astronaut training. Driven by the opportunity to apply data analytics and programming skills to build new tools and organizational capabilities.

**Computer Language, Database, Web-development & Machine-Learning Skills:**

* **Language, DB & Cloud** **-** Python, R, Java, JavaScript, Sed/Awk, Prostgresql, Neo4J, AWS System admin.
* **A.I**. **-** Alexa skill development, CMU Sphinx speech-to-text, & Raspberry Pi IoT development.
* **ML -** Scikit-learn, TensorFlow, NumPy, Theano, and Keras, Weka, MATLAB, K-means, SVM, & Decision Trees.
* **Web** **–** Flask.py, Node.js, JQuery.js, Angular.js, & React.js, HTML, CSS, & Wordpress.
* **Data visualization** **-** d3.js, three.js, Seaborn, ggplot2, Bokeh, Vega, Tableau, & AR.js (augmented reality).

**Communication and Leadership Experience:**

* Co-lead for Houston Data Visualization Meet-up (<https://houstondatavis.github.io/)>
* Rice Data Sci. Conf. 2017 Talk - “Practical Considerations for Data Science Consulting in a Large Organization“
* Experienced leading discussions with clients and subject matter experts.
* Acted as company representative to research consortium and led software vender evaluations.
* Collaborated with drilling engineers to adjust forward predictions in real-time during drilling operations.
* Managed and coached interns and junior staff. Co-organizer of 500+ person conference.

**Data Analytics and Machine-learning Experience:**

* Predicted fluid connectivity in gas field development leveraging multiple linear regression and neural networks.
* Predicted well-log lithology using support vector machine and boosted trees machine-learning methods.
* Delivered study that quantified how well conventional oil and gas exploration methods predicted the spatial distribution of economically successful wells in the major unconventional gas fields across the United States.
* Developed Alexa skill & ran offline speech-to-text study for A.I. use-case. NASA IoT working group member.
* Built a graph database of dependencies scraped from internal code repos to gain insight into developer skills.
* Acted as stratigraphy and sedimentology subject matter expert and consultant within center of excellence.
* Applied geostatistics in building 3D model simulations of subsurface fluid flow and resource size calculations used in a billion-dollar investment decision.

**Data Visualization and Web Development Experience:**

* Map making & spatial analysis using ArcGIS desktop, ArcGIS online, leaflet.js, mapbox.gl, geopandas.py, etc.
* System admin (linux) & webpage admin for microservices and client facing webpage servers
* Developed web-based data visualizations with d3.js, Tableau, and various JavaScript and Python libraries.
* Created an interactive visualization to show how NASA’s strategic goals and objectives map to spending.
* Built a project management dashboard that drastically improved the ability of executives to see trends.
* Visualized aggregate & device specific patterns in network traffic from an Internet of Things WiFi network.

***Professional Experience***

**S.A.I.C., Senior Data Scientist, (2018-current):**

Same as position below, embedded in NASA data team, but with increased focus on machine-learning.

**Valador Inc., Software Developer, (2016-2018):**

Push adoption of new technologies through consulting & proof-of-concept projects across a range of domains and clients as a member of the NASA OCIO Technology & Innovation Division Data Analytics lab.

**BP Exploration and Production, Geologist (2006-2015) & intern (2005):**

Worked in multidisciplinary teams to analyze data, make predictions, communicate results, and enable decisions.

**Education**

**Masters of Science**, Geoscience, 3.7 GPA – 2006 – University of Wisconsin – Madison

**Bachelors of Science**, Geoscience, Honors, – 2004 – Franklin and Marshall College, Pennsylvania