

BRIAN BURROWS

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Certified software engineer with six years of experience implementing algorithms and developing APIs using Python, Javascript, HTML/CSS in Flask, Node, Express, and React.

SKILLS

Languages	Python, Javascript, Matlab, R, HTML, CSS, Bash
Dev Tools	Flask, Node.js, Express, SQL-Alchemy, Jasmine, Jest, unittest, Heroku, React, Redux, WTForm, terminal, jQuery, bootstrap, Node-pg, JSON Web tokens.
Data Tools	SQL, ArcGIS, Tableau, Numpy, Scipy, Pandas, scikit-learn, Seaborn, matplotlib, statsmodels.
GitHub	github.com/brianjburrow
Linkedin	linkedin.com/in/brian-james-burrows

PROJECTS

SOKA Adventures

Main Technologies: Python, Flask, Javascript, CSS, and HTML, Mapbox, OpenWeatherMap, Amazon S3.

DDAS

Main Technologies: MATLAB, Transport Maps, Transport Map Accelerated Markov Chain Monte Carlo, Ensemble Kalman Filters, Treed Gaussian Processes.

nnTest

Main Technologies: Javascript, Node, React, Tensorflow

EXPERIENCE

Self Employed 2020-Present

- Proposed a software engineering project to improve wind farms. Finalist at NREL (~ 400 Applicants)
- Prototyped algorithms for optimal sensor placement, extremum seeking control, and information fusion..
- Provided code reviews for data science student at MIT's Policy Hackathon on Environmental Justice.

Research Scientist I A.I.R. Worldwide, Financial Uncertainty Group, 2019-2020

- Fixed QA issues by creating an ETL pipeline for statistical modeling of insurance claims.
- Fixed QA issues with probability distributions by designing a constrained non-linear optimization problem.
- Created data visualizations of natural disasters for various research teams.

Graduate Research Intern, Lawrence Livermore National Laboratory CASC, Summer 2017

- Performed exploratory data analysis on 700 terabytes of physics simulations on a Linux supercomputing cluster.

Graduate Research Assistant, Texas A&M University Computational Design Laboratory, 2014-2019

- Developed API for data driven algorithms, published 2 journal articles, and three conference articles.

EDUCATION

Software Engineering Career Track Certification , Springboard	2022
Applied Data Science Certificate , Massachusetts Institute of Technology	2021
Ph.D. in Mechanical Engineering , Texas A&M University	2019
M.S. in Mechanical Engineering , University of South Carolina	2014
B.S. in Bioengineering , Clemson University	2010