stephen.thornhill.casey@gmail.com **STEPHEN CASEY** [stephentcasey.com](http://stephentcasey.com/)

(850) 525-6721 [github.com/stephencasey](https://github.com/stephencasey)

Gulf Breeze, FL 32561 (available to relocate nationwide) [linkedin.com/in/steve-casey](https://www.linkedin.com/in/steve-casey/)

Software engineer and data scientist with 3 years of experience in analysis of large data sets using applied statistics, GIS, and modeling. Leveraging those abilities in data science, engineering, and stochastic modeling to build skills in software development. Interested in developing creative solutions that address complex and ambiguous challenges.

# PERSONAL PROJECTS

## [Landscape Patterns](http://landscape-patterns.stephentcasey.com/) Nov 2021

* Produced an interactive stochastic modeling app that displays real-time progression using client & server-side callbacks
* Created with Python, Dash, and Docker and deployed on AWS Elastic Beanstalk

## [OpenAdvisor](https://github.com/stephencasey/OpenAdvisor#readme) Aug 2021 - Oct 2021

* Developed a proof-of-concept for an automated college degree requirement scraper, parser, and serializer backend
* Transforms and encodes structured and unstructured data with 97% accuracy using Python & Selenium

# EDUCATION

## M.E., Environmental Engineering Sciences | University of Florida | 4.0 GPA Dec 2012

* Developed algorithms for automated statistical analyses of spatial data

## B.S.M.E., Mechanical Engineering | Florida Atlantic University May 2010

* Implemented hardware interfaces for a hydraulic system and a wind turbine

# CERTIFICATIONS

## AWS Certified Cloud Practitioner | Amazon Web Services Dec 2021

## Deep Learning Specialization | DeepLearning.ai via Coursera Oct 2021

* CNN's, RNN's, gradient descent, Adam, L2, dropout, batch norm., softmax, NLP, TensorFlow

**IBM Data Science Certificate | IBM via Coursera Aug 2021**

* Sci-kit-learn, Matplotlib, Seaborn, DB-API, GIT/GitHub

# EXPERIENCE

## Rideshare Driver | Self-employed May 2015 - Oct 2021

## Emergency Department Technician | Valley View Hospital Aug 2020 - Jun 2021

* Facilitated all aspects of patient care while working within a diverse team of hospital staff
* Trained six existing employees within the Urgent Care and one new employee within the Emergency Department

**Research Associate University of Florida, SFRC Ecohydrology Lab Jun 2013 - Oct 2016**

* Developed statistical metrics of wetlands morphology through exploratory analyses using stochastic modeling, multivariate analysis, advanced image processing, and spectral analysis
* Developed algorithms to extract statistical features from spatial & hydrologic data within a scripting environment
* Normalized varying large data sets into cohesive analyses using MATLAB, ArcGIS, Python, and R
* Published two peer reviewed articles which together have been cited by over 40 others

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# PUBLICATIONS

1. [**Casey, S. T.**, Cohen, M. J., Acharya, S., Kaplan, D. A., & Jawitz, J. W. (2016). Hydrologic controls on aperiodic spatial organization of the ridge–slough patterned landscape. Hydrology and Earth System Sciences, 20(11), 4457-4467.](https://scholar.google.com/citations?user=KHMWi6cAAAAJ&hl=en)
2. [Acharya, S., Kaplan, D. A., **Casey, S. T.**, Cohen, M. J., & Jawitz, J. W. (2015). Coupled local facilitation and global hydrologic inhibition drive landscape geometry in a patterned peatland. Hydrology and Earth System Sciences, 19(5), 2133.](https://scholar.google.com/citations?user=KHMWi6cAAAAJ&hl=en)

# TOOLS

**Python, PostgreSQL, HTML/CSS, Pandas, AWS, MATLAB**