



# COMPANY PROFILE

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## 1 THE COMPANY

### 1.1 The Name

The gyroid is an infinitely connected periodic minimal surface containing no straight lines. It has no reflectional symmetries, and is the only known embedded triply periodic minimal surface with triple junctions. This shape was discovered in 1970 by NASA researcher Alan Schoen.

## 1.2 Company History

Gyroid was formed in 2017 by a group of three researchers at the NASA Langley Research Center – Stephen Casey, a civil servant, Wade Hunter, an Aurora Foundation Award recipient, and Robert Milletich, a consultant with Booz Allen Hamilton. By observing the recent developments of data science methods that overlap with the social sciences, they realized they could apply their expertise in data analytics and machine learning to create a positive social impact, both locally in Virginia and elsewhere on Planet Earth.

## 1.3 Our Mission

The mission of Gyroid is to use data analytics for social good. We are dedicated to creating social impact through machine learning, big data, and data science projects. We are working to solve real-world problems in education, health, environmental sustainability, public safety, social services, transportation, economic development, and international development, by using data-driven methods combined with human expertise.

## 1.4 Our Culture

Gyroid is committed to uncompromising integrity and constant respect for people in its operations. Our employees are the most valuable asset we have. The collective sum of the individual differences, life experiences, knowledge, inventiveness, innovation, self-expression, unique capabilities and talent that our employees invest in their work represents a significant part of our culture, our reputation, and our company's achievement.

As described in our Environmental, Social, and Governance policy, Gyroid is committed to operating in a socially conscious manner, both internally and externally. Social effects, environmental impact, and organizational ethics are factored into every decision. Transparency and communication are paramount.

## 2 DOMAINS

### 2.1 Government

Determining the most effective ways to allocate expensive or limited resources is a pressing government issue. Included within this category are numerous other concerns, including the prediction of when and where city infrastructure will need repair, and finding the best ways to help low-income and at-risk populations.

### 2.2 NGO

Due to their nature as nonprofit organizations, it is important for NGOs to have a thorough understanding of the best methods of engaging donors and supporters. Pursuant to the mission of the NGO, it is also helpful to determine which projects are most likely to succeed under different conditions. Often new technologies are available to solve hard problems.

### 2.3 Corporate

The development of enterprise software solutions can often significantly increase productivity. If software gaps exist within a particular company or industry, the development of custom applications creates a competitive advantage. Additionally, data science is frequently employed to discover hidden trends in emerging market data.

## 2.4 Humanitarian

Among the most salient questions for any humanitarian cause: How can we do the most good for the most people? How can local chapters be most effective? How can we spend less time fundraising and more time making an impact?

## 3 SERVICES

The services provided by Gyroid include machine-learning, app development, consulting, and enterprise solutions. We are able to use cutting edge machine learning algorithms to solve the most complicated problems, deliver custom software and application development, and scale these solutions to any problem size. We can also provide expert recommendations, seminars, or short courses tailored to specific needs.

## 4 OUR STAFF

### 4.1 Stephen Casey – CEO

Stephen Casey is a quantum computing researcher at the NASA Langley Research Center.

He is a former systems engineer with ATK Space Systems, software engineer with NASA Langley, and vice president of Hampton Roads Engineers Without Borders.

He is a 2011 European Union Erasmus Mundus Scholar.

He received bachelor's degrees in Mechanical Engineering and Mathematics from Tulane University, and a master's degree in Plasma Physics and Magnetic Confinement Fusion from Universidad Complutense de Madrid and Université Henri Poincaré.

### 4.2 Wade Hunter – CTO

Wade Hunter is a US Navy Veteran and former nuclear electronics technician responsible for reactor operation and critical control systems.

He is the first Aurora Foundation Award recipient at the NASA Langley Research Center.

At NASA, Wade works on big data and machine analytics, high performance computing, advanced materials and processing, electromagnetics, and sensors, while pursuing degrees in Electrical and Computer Engineering at Old Dominion University.

### 4.3 Robert Milletich – COO

Robert Milletich is a data scientist at Booz Allen Hamilton. He primarily provides analytic support for clients at the NASA Langley Research Center.

He has almost a decade of experience working as a statistician in both academic and industry settings.

He has a bachelor's degree in Psychology, master's degrees in Experimental Psychology and Applied Mathematics, and a Ph.D. in Quantitative Psychology from Old Dominion University.

## 5 CLIENT TESTIMONIALS

“Smart BioHealth worked with the professionals at Gyroid on software development and data analysis. They are an outstanding team with exceptional machine learning skills and phenomenal customer service. Gyroid solved complex problems for our company with step by step instruction and analysis. Working with Gyroid has moved our company to the next level by providing us with the knowledge, tools and software to research independently. We highly recommend the team at Gyroid to address your machine learning needs. (They can find solutions to problems you didn't know you had 😊)”

-Theresa Waterbury, Smart BioHealth LLC

## 6 CONTACT US

Drop us a line at [contact@gyroid.io](mailto:contact@gyroid.io). We'd love to hear from you.