

# HUY HOANG NGUYEN

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## Professional Summary

Skilled Data Science and Mathematics professional with over 16 years of experience in advanced mathematics and leadership, and 2 years of educational experience in data science project management, leveraging data to drive business solutions, and statistical modeling. Extensive experience in predictive analytics and programming, data visualization, and process improvements. Continually exceeds expectations by building valuable partnerships and works well with people at all levels of the organization, including stakeholders, customers, and team members.

Data Science Projects: <https://www.hoangnguyen.us/data-science-projects>

Pure and Applied Mathematical Selected Publications: <https://www.hoangnguyen.us/research/publication>

## Education & Certifications

### Education

- **Université de Pau et des Pays de l'Adour (UPPA – France)** – *PhD in Mathematics* – 10/2004 to 11/2008 - Graduated with Highest Honors (Summa Cum Laude)
- **Southern Methodist University (SMU – USA)** – *Master of Science in Data Science*, 4.0 GPA – 09/2019 to 05/2021
- **Scientific Committee - French Ministry for Higher Education & Scientific Research** – *Qualified Assistant Professor* – 2009
- **Université de Pau et des Pays de l'Adour (UPPA – France)** – *Master of Science in Applied Mathematics* – 09/2003 to 06/2004

### Certifications

- AWS Machine Learning (AWS) (2020)
- Mathematics for Machine Learning (Imperial College London) (2020)
- Data Science and Machine Learning (Udemy) (2020)
- Python A-Z™: Python for Data Science – Udemy (2020)
- IBM Data Science Professional Certificate - IBM (2019)
- Business Foundations – LinkedIn (2019)
- Office 365 New Features – LinkedIn (2019)
- Learning SQL Programming – LinkedIn (2019)
- Responsible Conduct of Research Certificate – CITI Program (2019)
- Human Subjects Training Certificate – CITI Program (2019)

## Skills

- Leadership & People Management
- Data Science & Predictive Analytics
- R, SAS, Python, SQL, NoSQL & Data Modeling
- Database Management & Business Analytics
- Detailed Research & Project Management
- Machine Learning & Data Visualization
- Detail Oriented & Highly Adaptable
- Team Player & Workflow Facilitator
- Computer Science, Mathematical & Statistical Expertise
- Process Improvements & Iterative Design
- Creative Problem Solving & Complex Analysis
- Excellent Verbal & Written Communication

## Work History

### Data Science

09/2019 to Current

**Southern Methodist University** – Dallas, TX

- Obtaining a practical, hands-on overview of the end-to-end data science process using industry standard tools and techniques including SAS, R, RStudio, knitr, R Markdown, Github, Python, MySQL, MongoDB, Tableaux, AWS and Apache Spark.
- Acquiring the knowledge and skills necessary to work with stakeholders throughout an organization to identify opportunities for leveraging company data to drive business solutions, developing custom data models and algorithms.
- Learning how to mine and analyze data from company databases to drive optimization and improvement of product development, marketing techniques and business strategies, developed testing framework and test model quality.

- Assessing the effectiveness and accuracy of new data sources and data gathering techniques, developing custom data models and algorithms to apply to data sets, implementing models and monitoring outcomes using machine learning.
- Mastering how to use predictive modeling to increase and optimize customer experiences, revenue generation, ad targeting and other business outcomes, developing processes and tools to analyze data accuracy and model performance.
- Providing an overview and tutorial of the Apache Spark ecosystem used for Big Data Analytics to produce a unified computing engine which resulted as a leading contender for big data processing.
- Designing data science projects using real-life data from beer industry, banking, real estate, human resources, healthcare, sport utilizing different statistical and machine learning techniques in different programming languages (SAS, R, Python).

**Professor (On Leave), Undergraduate & Graduate Programs**

**11/2011 to Current**

**Universidade Federal do Rio de Janeiro – Rio de Janeiro, Brazil**

- Expertly teaching undergraduate and graduate mathematics courses, designing and executing curricula, successfully advised and mentored graduate students, serving as an institutional mathematical coordinator.
- Conducting and maintaining an active role in research, grant funding, and international scholar review, performed various departmental duties such as participating in hiring committees and master and Ph.D juries for student candidates.
- Coordinating PDE seminars at Institute of Mathematics and other extension activities, developing curricula and delivering course material, conducted and published research, attending conferences, delivering presentations, and networked.
- Providing training and mentoring to teaching assistants and junior lecturers, reviewing method and teaching materials and making recommendations for improvements, assisting with student recruitment, interviews, and academic counseling.

**Associate Scientist**

**10/2017 to Current**

**Laboratoire de Mathématiques et de leurs Applications, UMR E2S-UPPA CNRS 5142**

**Université de Pau et des Pays de l'Adour, Centre National de la Recherche Scientifique - France**

- Expertly conducting a variety of research projects in collaboration with other institutional researchers in Partial Differential Equations and Fluid Mechanics.
- Maintaining a strong publication record, developing a vigorous externally funded research program, recruiting and supervising graduate students, providing outstanding teaching at the undergraduate and graduate levels.
- Contributing leadership, collaboration, and innovative thinking toward an excellent Fluid Mechanics and Partial Differential Equations program within the department and the university and to the mathematics profession.
- Continually designing, developing, and implementing initiatives to contribute toward an increase in the number of students (especially underrepresented minority students) pursuing graduate degrees in related programs.
- Building clear and effective channels of communication, enabled forward momentum and movement through complex analysis and creative problem-solving skills, reliably leveraging mathematical expertise to design research solutions.

## Other Work Experience

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**Data Scientist (Volunteer) – Coronawhy – 06/2020 to Current**

**Consulting Scientist – Converge Lab – 05/2020 to Current**

**Graduate Teaching Assistant of Master of Data Science – Southern Methodist University – 04/2020 to Current**

**Board of Directors – DataReady DFW – 11/2019 to Current**

**Adjunct Professor – North American University – 08/2019 to Current**

**Adjunct Professor – University of Houston, Clear Lake – 08/2019 to 12/2020**

**Visiting Researcher in Applied Mathematics – various Research Centers in Europe, North and South America – 2009 to 2019**

**Post-doctoral fellow of Applied Mathematics – Universidade Estadual de Campinas – 09/2009 to 08/2011**

**PhD candidate of Mathematics – Université de Pau et des Pays de l'Adour – 10/2004 to 11/2008**