JOHN PAUL HELVESTON

I am a researcher, engineer, data scientist, ℝ developer, musician, and swing dancer. I have expertise in measuring and modeling consumer preferences using discrete choice modeling and conjoint analysis as well as technology and policy expertise in the electric vehicle industry. My academic research focuses on relationships between technological change and consumers, firms, markets, and policy, with a goal of accelerating transitions to environmentally sustainable and energy-saving technologies.

✉ john.helveston@gmail.com

○ github.com/jhelvy

🐦 twitter.com/JohnHelveston

⌂ jhelvy.com

🔊 jhelvy.com/blog

📞 +1 (757) 503-3500

🎓 EDUCATION

2016 **Carnegie Mellon University**
Ph.D. & M.S. in Engineering and Public Policy

2010 **Virginia Tech**
B.S. in Engineering Science and Mechanics

💼 EMPLOYMENT

2018 | 2022 **Assistant Professor**
George Washington University (Washington, D.C.)

- Project and team management
- Design, conduct, and analyze consumer preference experiments
- Communicate results in reports, books, papers, and talks
- Develop open source teaching materials in data science
- Develop research software for choice modeling and survey design
- Teach undergraduate and graduate technical coursework
- Successfully write grant proposals for external funding
- Recruit, supervise, and lead a team of skilled professionals
- Organize conferences and events

2016 | 2018 **Postdoctoral Fellow**
Institute for Sustainable Eergy, Boston University (Boston, MA)

📢 SELECT TALKS

2021 **Obtaining willingness to pay estimates from preference space and willingness to pay space utility models**
Turbo Choice Modeling Panel, Sawtooth Software Conference (San Antonio, TX)
🎥 jhelvy.com/talks/2021-04-20-sawtooth-conf-logitr/

2020 **China's key role in scaling low-carbon energy technologies**
Confucius Institute, University of Albany (Albany, NY)
🎥 jhelvy.com/talks/2020-10-09-confucius-institute-fall-seminar/

</> PROGRAMMING

R / tidyverse / Shiny
Python
HTML / CSS / javascript
git / GitHub
Matlab
Apache Arrow
SQL

🌐 DATA ANALYSIS

Discrete choice modeling
Monte carlo simulation
Data visualization (e.g., ggplot2)
Exploratory data analysis
Statistical regression
Bayesian data analysis (e.g., Stan)

📖 LITERATE CODING

RMarkdown / quarto
xaringan / revealjs slides
LaTeX

🖳 TRAINING AND TEACHING SKILLS

2019
|
2022

Marketing analytics for design decisions
Graduate course introducing the conjoint analysis method for quantifying consumer preferences to inform technical design decisions, implemented using the R programming language. Course website, slides, and content are all open source and developed in R.
🔗 madd.seas.gwu.edu/

2020
|
2022

Exploratory data analysis
Project-based undergraduate course providing an introduction to exploring and visualizing data using the R programming language. Course website, slides, and content are all open source and developed in R.
🔗 eda.seas.gwu.edu/

2019
|
2022

Programming for analytics
Introductory undergraduate course providing a broad overview of fundamental programming concepts and problem-solving skills using the R programming language. Course website, slides, and content are all open source and developed in R.
🔗 p4a.seas.gwu.edu/

🤝 COMMUNITY ROLES

2020
|
2021

GW Coders
Cofounder and organizer
🔗 gwcoders.github.io

2019
|
2021

Industry Studies Association
Dissertation award chair & conference organizing committee
🔗 industrystudies.org/

📄 SELECT PAPERS

2019

China's key role in scaling low-carbon energy technologies
Science
🔗 doi.org/10.1007/s11002-020-09541-9

2018

Pooling stated and revealed preference data in the presence of endogeneity
Transportation Research Part B: Methodological
🔗 doi.org/10.1016/j.trb.2018.01.010

20 scientific articles, 478 citations, h-index: 6
🔗 jhelvy.com/research

🔤 LANGUAGES

Chinese (mandarin)
- speaking: *fluent*
- reading / writing: *intermediate*

📦 R PACKAGES

🔗 logitr
Fast estimation of mixed logit models with WTP space utility parameterizations

🔗 cbcTools
Tools for designing choice-based conjoint survey experiments

🔗 renderthis
Render media to different formats