

CURRICULUM VITAE

| NAME | TITLE |
|------------------|-------|
| David G. Dobolyi | PhD |

EDUCATION/TRAINING

| INSTITUTION AND LOCATION | DEGREE | YEAR | FIELD OF STUDY |
|--------------------------------------|--------|------|---------------------------------|
| University of Virginia | PhD | 2015 | Cognitive Psychology |
| University of Virginia | MA | 2012 | Cognitive Psychology |
| University of Maryland, College Park | BA | 2007 | English Language and Literature |

Research Interests

- Ethics & AI
- Big Data Analytics & Machine Learning
- Natural Language Processing
- Quantitative Modeling
- Eyewitness Memory, Healthcare, Cybersecurity, Cryptocurrency, and Esports & Gaming

Titles

- [GAMA Lab Co-Director](#)

Links

- [Google Scholar](#)
- [GitHub](#)
- [LinkedIn](#)

Work Experience

Assistant Research Professor

Mendoza College of Business
University of Notre Dame
2020 - Present

- Teaching courses involving business analytics, machine learning, and data wrangling using Python and R
- Working on a wide range of research projects
- Applying for grant funding involving a variety of projects, including facial recognition research

Research Assistant Professor

McIntire School of Commerce
University of Virginia
2018 - 2020

- Conducted and contributed to research projects and applied for grants (e.g., see Amazon Research Awards 2019 [source code](#) on GitHub)
- Developed and taught new course offerings including Business Analytics with R (see my [R Bootcamp](#) and [Python Bootcamp](#) on GitHub), MSBA Databases & BI, and MSBA Capstone I: Solution Design
- Served as MSBA Module 5 coordinator
- Continued supervising student-led research as part of the Deloitte Foundation Analytics Scholars Program (see [here](#) for details)

Faculty Research Scientist

McIntire School of Commerce
University of Virginia
2015 - 2018

- Assisted colleagues with research projects and teaching
- Supported the Center for Business Analytics, including designing, developing, and maintaining on-premise and cloud-based research infrastructure (e.g., AWS, Azure)
- Taught existing courses and developed new ones (e.g., Data Analytics in the Mobile App Domain Using R)

Teaching Experience

| Semester | Course | Role | Title | Rating (1-5) |
|-------------|---------------|-----------|-------------------------------------------------|--------------|
| Fall 2021 | MSBR 70250-02 | Instr. | Python for Data Analytics | 5.0 |
| Fall 2021 | MSBR 70250-01 | Instr. | Python for Data Analytics | 4.9 |
| Fall 2021 | MSBR 70810-02 | Instr. | Data Wrangling with Databases & R | 5.0 |
| Fall 2021 | ITAO 70260-01 | Instr. | Python for Data Analytics | 5.0 |
| Spring 2021 | ITAO 70810-01 | Instr. | Data Wrangling with R | 5.0 |
| Fall 2020 | ITAO 70260-03 | Instr. | Python for Data Analytics | 5.0 |
| Fall 2020 | ITAO 74311-01 | Instr. | Machine Learning | – |
| Fall 2020 | ITAO 70810-01 | Instr. | Data Wrangling with R | 5.0 |
| Summer 2020 | GBAC 7218 | Instr. | Capstone Project I: Solution Design | 4.94 |
| Spring 2020 | GCOM 7560-03 | Instr. | Emerging Topics in Commerce: Python | 4.77 |
| Spring 2020 | GCOM 7240 | Co-Instr. | Advanced Quantitative Analytics | 4.75 |
| Spring 2020 | GBAC 7212 | Instr. | Databases & BI | 4.88 |
| Spring 2020 | GBAC 7208 | Co-Instr. | Customer Analytics II | 4.95 |
| Fall 2019 | COMM 4559-01 | Instr. | Business Analytics with R | 4.75 |
| Summer 2019 | GBAC 7218 | Instr. | Capstone Project I: Solution Design | 5.00 |
| Spring 2019 | GCOM 7240 | Co-Instr. | Advanced Quantitative Analytics | 4.38 |
| Spring 2019 | GBAC 7212 | Instr. | Databases & BI | 4.48 |
| Fall 2018 | COMM 4559-05 | Instr. | Business Analytics with R | 4.77 |
| Spring 2018 | COMM 3220 | Instr. | Database Management Systems and BI | 4.58, 4.40 |
| Spring 2018 | GCOM 7240 | Co-Instr. | Advanced Quantitative Analytics | 4.52 |
| Fall 2017 | COMM 3220 | Instr. | Database Management Systems and BI | 4.41 |
| Spring 2017 | COMM 3220 | Instr. | Database Management Systems and BI | 4.65, 4.39 |
| Spring 2017 | GCOM 7240 | Co-Instr. | Advanced Quantitative Analytics | 4.58 |
| Summer 2016 | COMM 2559-01 | Instr. | Data Analytics in the Mobile App Domain Using R | 5.00 |

Notes. Ratings from Fall 2020 onwards are based on the median, whereas prior ratings are based on the mean. A rating of ‘–’ indicates insufficient responses to generate a rating or a course that is not yet complete.

Published Research Articles

1. Abbasi, A., Dobolyi, D., Vance, A., & Zahedi, F.M. (2021). The Phishing Funnel Model: A Design Artifact to Predict User Susceptibility to Phishing Websites. *Information Systems Research*. 32(2), 410-436.
2. Gettleman, J.N., Grabman, J.H., Dobolyi, D.G., & Dodson, C.S. (2021). A Decision Processes Account of the Differences in the Eyewitness Confidence-Accuracy Relationship between Strong and Weak Face Recognizers under Suboptimal Exposure and Delay Conditions. *Journal of Experimental Psychology: Learning, Memory, and Cognition*. 47(3), 402-421.
3. Chen, Y., Zahedi, F.M., Abbasi, A., & Dobolyi, D. (2021). Trust calibration of automated security IT artifacts: A multi-domain study of phishing-website detection tools. *Information & Management*. 58(1).
4. Ahmad, F., Abbasi, A., Li, J., Dobolyi, D.G., Netemeyer, R.G., Clifford, G.D., & Chen, H. (2020). A Deep Learning Architecture for Psychometric Natural Language Processing. *ACM Transactions on Information Systems (TOIS)*. 38(1), 1-29.
5. Netemeyer, R.G., Dobolyi, D.G., Abbasi, A., Clifford, G., & Taylor, H. (2019). Health Literacy, Health Numeracy, and Trust in Doctor: Effects on Key Patient Health Outcomes. *Journal of Consumer Affairs*.
6. Grabman, J.H., Dobolyi, D.G., Berelovich, N.L., & Dodson, C.S. (2019). Predicting High Confidence Errors in Eyewitness Memory: The Role of Face Recognition Ability, Decision-Time, and Justifications. *Journal of Applied Research in Memory and Cognition (JARMAC)*. 8(2), 233-243.
7. Dobolyi, D.G., & Dodson, C.S. (2018). Actual vs. perceived eyewitness accuracy and confidence and the featural justification effect. *Journal of Experimental Psychology: Applied*. 24(4), 543-563.
8. Kitchens, B., Dobolyi, D., Li, J., & Abbasi, A. (2018). Advanced Customer Analytics: Strategic Value Through Integration of Relationship-Oriented Big Data. *Journal of Management Information Systems*. 35(2), 540-574.
9. Dodson, C.S., & Dobolyi, D.G. (2017). Judging guilt and accuracy: highly confident eyewitnesses are discounted when they provide featural justifications. *Psychology, Crime & Law*. 23(5), 487-508.

10. Claassen, D.O., Doboily, D.G., Isaacs, D.A., Roman, O.C., Herb, J., Wylie, S.A., Neimat, J.S., Donahue, M.J., Hedera, P., Zald, D.H., Landman, B.A., Bowman, A.B., Dawant, B.M., & Rane, S. (2016). Linear and Curvilinear Trajectories of Cortical Loss with Advancing Age and Disease Duration in Parkinson's Disease. *Aging and Disease*. 7(3), 220-229.
11. Dodson, C.S., & Doboily, D.G. (2016). Confidence and Eyewitness Identifications: The Cross-Race Effect, Decision-Time and Accuracy. *Applied Cognitive Psychology*. 30(1), 113-125.
12. Tolleson, C.M.,* Doboily, D.G.,* Roman, O.C., Kanoff, K., Barton, S., Wylie, S.A., Kubovy, M., & Claassen, D.O. (2015). Dysrhythmia of Timed Movements in Parkinson's Disease and Freezing of Gait. *Brain Research*. 1624, 222-231. *Authors contributed equally
13. Open Science Collaboration. (2015). Estimating the Reproducibility of Psychological Science. *Science*. 349 (6251), aac4716.
14. Willingham, D.T., Hughes, E.M., & Doboily, D.G. (2015). The Scientific Status of Learning Styles Theories. *Teaching of Psychology*. 42(3), 266-271.
15. Dodson, C.S., & Doboily, D.G. (2015). Misinterpreting eyewitness expressions of confidence: The featural justification effect. *Law and Human Behavior*. 39(3), 266-280. ([live demo](#))
16. Doboily, D.G., & Dodson, C.S. (2013). Eyewitness Confidence in Simultaneous and Sequential Lineups: A Criterion Shift Account for Sequential Mistaken Identification Overconfidence. *Journal of Experimental Psychology: Applied*. 19(4), 345-357. ([live demo](#))

Active Grants

1. "Tri-Modal Deep Learning for Video Sponsored Content Detection." PI. 2021 Faculty Research Support Program (FRSP) - Initiation Grant (IG). Funded by Notre Dame Research.
2. "EAGER: Understanding the Assumptions of Principal Investigators". Co-PI (with Berente, N.) Funded by National Science Foundation (NSF; CNS-2129230).
3. "Machine Learning Methods for Causal Inference in Digital Experimentation Platforms." Co-PI (with Abbasi, A., Kelley, K.). Funded by eBay.
4. "NLP for the Greater Good: A Robust Deep Learning Framework." Co-PI. (with Abbasi, A.). Funded by Oracle for Research.

Research Articles in Progress

1. (with Abbasi, A., Dodson, C.S., Grabman, J.H., ...) "Psychological vs. Algorithmic Similarity in Facial Recognition." Currently working on first round submission to PNAS with intention to submit in Mar 2022.
2. (with Lichtenstein, D.R., Lynch, J.G., Netemeyer, R.G.) "Subjective vs. Objective Knowledge: Effects on Financial Behavior and Well Being and Parallels in Physical Health." Reject and resubmit to Journal of Marketing Research in Feb 2022.
3. (with Doboily, K., Goldfrank, J., Hampel-Arias, Z., Sieniawski, G.) "Hindsight2020: Characterizing Uncertainty in the COVID-19 Scientific Literature." First round submission to Disaster Medicine and Public Health Preparedness in Jan 2022.

Research Work in Progress

1. (with Berente, N., Lehmann, J.C.) "Analyzing Engagement in Esports and Online Streaming" in conjunction with ESL Gaming. First round of data collection in late 2021. Currently reviewing first study results and determining next steps.
2. (with Wright, R.T.) Survey-based research project in conjunction with the US Census Bureau. Currently working on results write-up and establishing Special Sworn Status.
3. (with Abbasi, A., Berente, N., Wright, R.T., ...) "Systematizing Confidence in Open Research and Evidence (SCORE)" with Center for Open Science (COS) and DARPA. Currently awaiting next stage of project.

Conference Proceedings

1. Abbasi, A., Doboily, D., Lalor, J.P., Netemeyer, R.G., Smith, K., & Yang, Y. (2021). Constructing a Psychometric Testbed for Fair Natural Language Processing. *Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing*. 3748-3758.

2. Dobolyi, D.G., Abbasi, A., Zahedi, F.M. & Vance, A. (2020). An Ordinal Approach to Modeling and Visualizing Phishing Susceptibility. In the 2020 IEEE Conference on Intelligence and Security Informatics (ISI), Arlington, VA, 2020, pp. 1-6, doi: 10.1109/ISI49825.2020.9280478.
3. Dobolyi, D.G., Abbasi, A., Zahedi, F.M. & Vance, A. (2017). The Phishing Funnel Model for Predicting User Susceptibility to Phishing Websites. In the 2017 INFORMS Workshop on Data Science at Houston, Texas.
4. Abbasi, A., Dobolyi, D.G., Zahedi, F.M. & Vance, A. (2017). The Phishing Funnel Model: Predicting User Susceptibility to Phishing Websites. In the 2017 Winter Conference on Business Analytics at Snowbird, Utah.
5. Dobolyi, D.G., & Abbasi, A. (2016). "PhishMonger: A free and open source public archive of real-world phishing websites." In the 2016 IEEE Conference on Intelligence and Security Informatics (ISI), Tucson, AZ, 2016, pp. 31-36. doi: 10.1109/ISI.2016.7745439.

Oral Presentations

1. Dobolyi, D.G., Abbasi, A., Zahedi, F.M. & Vance, A. (2020). An Ordinal Approach to Modeling and Visualizing Phishing Susceptibility. Presented virtually at 2020 IEEE Conference on Intelligence and Security Informatics (ISI).
2. Dobolyi, D.G., Abbasi, A., Zahedi, F.M. & Vance, A. (2017). The Phishing Funnel Model: Predicting User Susceptibility to Phishing Websites. Presented at 2017 INFORMS Workshop on Data Science at Houston, Texas.
3. Abbasi, A., Dobolyi, D.G., Zahedi, F.M. & Vance, A. (2017). The Phishing Funnel Model: Predicting User Susceptibility to Phishing Websites. Presented at 2017 Winter Conference on Business Analytics at Snowbird, Utah.
4. Dobolyi, D.G. & Abbasi, A. (2016). PhishMonger: A Free and Open Source Public Archive of Real-World Phishing Websites. Presented at 2016 IEEE Conference on Intelligence and Security Informatics (ISI) at the University of Arizona.
5. Dobolyi, D.G., & Kubovy, M. (2015). GameMaps: Using Big Data to Understand Enjoyment. Presented at 2015 Robert J. Huskey Research Exhibition at the University of Virginia.
6. Dobolyi, D.G., & Kubovy, M. (2015). GameMaps: Using Big Data to Understand Enjoyment. Presented at 2015 Graduate Research Symposium at the College of William & Mary.
7. Dobolyi, D.G., & Kubovy, M. (2015). GameMaps: Using Big Data to Understand Enjoyment. Presented at 2015 Annual North Carolina Cognition Conference at Elon University.
8. Dobolyi, D.G., & Dodson, C.S. (2014). Misinterpretation of Eyewitness Confidence: The Justification Effect. Presented at 2014 Robert J. Huskey Research Exhibition at the University of Virginia.
9. Dodson, C.S., & Dobolyi, D.G. (2014). Misinterpreting Expressions of Eyewitness Confidence: The Justification Effect. Presented by Dobolyi, D.G. at 2014 Annual North Carolina Cognition Conference at Duke University.
10. Dobolyi, D.G. (2013). Measures of the Confidence-Accuracy Relationship: An Investigation of Power. Presented at 2013 Spring LIFE Academy Conference at the University of Michigan, Ann Arbor.
11. Dobolyi, D.G. (2013). Measures of the Confidence-Accuracy Relationship: A Simulation Study of Exactness and Power. Presented at 2013 Robert J. Huskey Research Exhibition at the University of Virginia.
12. Dobolyi, D.G., & Dodson, C.S. (2012). Eyewitness Memory: Examining the Effect of Lineup Format on Same vs. Cross-Race Identification. Presented at 2012 Robert J. Huskey Research Exhibition at the University of Virginia.
13. Dobolyi, D.G., & Dodson, C.S. (2012). Eyewitness Memory: Examining the Effect of Lineup Format on Same vs. Cross-Race Identification. Presented at 2012 Annual North Carolina Cognition Conference at the University of North Carolina, Chapel Hill.

Poster Presentations

1. Gettleman, J.N., Dobolyi, D.G., & Dodson, C.S. (2021). Verbal justifications improve the predictive value of numeric judgments of learning for eyewitness identifications. Poster presented at 2021 Annual Psychonomic Society, New Orleans, LA. Winner of a 2021 Graduate Conference Award.

2. Somanchi, S., Abbasi, A., Dobolyi, D., Kelley, K. & Yuan, T.T. (2021). User and Session Heterogeneity in Digital Experiments: A Framework for Analysis and Understanding. Poster presented virtually with 2-minute pre-recorded slam session at 2021 Conference on Digital Experimentation @ MIT (CODE@MIT).
3. Dobolyi, D.G. & Abbasi, A. (2016). PhishMonger: A Free and Open Source Public Archive of Real-World Phishing Websites. Poster presented at 2016 IEEE Conference on Intelligence and Security Informatics (ISI) at the University of Arizona.
4. Dobolyi, D.G., & Dodson, C.S. (2013). Confidence and Eyewitness Identification: Does the Choice of Scale Matter? Poster presented at 2013 Presidential Poster Competition, Charlottesville, VA.
5. Dobolyi, D.G., & Dodson, C.S. (2012). Confidence and Eyewitness Identification: Does the Type of Scale Matter? Poster presented at 2012 Annual Psychonomic Society, Minneapolis, MN.
6. Dobolyi, D.G., & Dodson, C.S. (2012). Confidence and Eyewitness Identification: Does the Type of Scale Matter? Poster presented at 2012 Fall LIFE Academy Conference, Charlottesville, VA.
7. Dobolyi, D.G. (2012). Eyewitness Lineups: Examining the Effect of Lineup Race on Lineup Format. Poster presented at 2012 APS Conference, Chicago, IL.
8. Dobolyi, D.G., & Dodson, C.S. (2012). Now You See Me and Now You See Me Again: Investigating Source Confusion and High Confidence Errors for Mugbook Presentations in Younger and Older Adults. Poster presented at 2012 Spring LIFE Academy Conference at the Max Planck Institute, Berlin, Germany.
9. Dobolyi, D.G., & Dodson, C.S. (2011). Eyewitness Lineups: Examining the Effect of Lineup Race on Lineup Format. Poster presented at 2011 Annual Psychonomic Society, Seattle, WA.

Graduate School Research Experience

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| Dodson Cognition Lab | <p>Conducted research on eyewitness memory for publication (e.g., what is the best way to conduct a lineup? how do we understand eyewitness confidence?).</p> <ul style="list-style-type: none"> • Developed a custom infrastructure for running mTurk- and lab-based studies (live demo) • Conducted data analyses in <i>R</i> (e.g., mixed-effects modeling, receiver operating characteristic, simulation) • Published journal articles and presented at conferences • Wrote grant applications |
| Kubovy Perception Lab | <p>Developed <i>GameMaps</i>, a big data project aimed at understanding enjoyment, positivity, and excitement using Twitter and game statistics for the 2013-2014 NBA season.</p> <ul style="list-style-type: none"> • Collected 140+ GB of NBA Twitter Data via Stream API • Wrote an <i>R</i> package to collect, organize, and visualize NBA.com/stats data in combination with Twitter volume • Organized and synchronized data into a single time series and developed a classification of game types • Conducted analyses in <i>R</i> using methods including: regression, cluster analysis, Granger causality, etc. • Presented results at conferences |
| Jonathan Haidt | <p>Improved access to data on YourMorals.org, a platform for conducting online research about morality. Secondary tasks include creating and supporting various websites.</p> <ul style="list-style-type: none"> • Developed the YMDownloader SPSS Integration Tool • Created studies and curated study databases • Assisted and trained YourMorals.org researchers |

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| | <ul style="list-style-type: none"> • Served as webmaster for EthicalSystems.org, RighteousMind.org, Moral-Foundations.org, CivilPolitics.org, etc. |
| Daniel Claassen, MD | <p>Conducted data analyses on medical research involving patients with Parkinson's disease and other impairments.</p> <ul style="list-style-type: none"> • Recovered and analyzed problematic data • Conducted multi-model, mixed-effects analysis of time series data using a natural splines approach • Co-authored journal publications |
| Daniel Willingham | <p>Developed and conducted an online study for education research regarding learning styles.</p> <ul style="list-style-type: none"> • Developed and ran the study on mTurk using a custom-developed platform • Conducted data analyses • Contributed to a published research article |

Graduate School Teaching Assistant Experience

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|------------|--------------------------------------------------------------------------------------------------------------|
| 2015, 2014 | Departmental Statistical Consultant |
| 2014 | R Statistics Bootcamp for Incoming Graduate Students |
| 2014, 2013 | Quantitative Methods II: Experimental Design (PSYC 7720) |
| 2013, 2012 | Quantitative Methods I: Probability and Statistical Inference (PSYC 7710) |
| 2012 | Advanced Data Analysis and Research Methods: Mathematical Foundations of Cognitive Psychology (PSYC 4005) |
| 2011 | Psychology of Art (PSYC 3559) |
| 2011 | Research Methods and Data Analysis II (PSYC 3006) |
| 2010 | Introduction to Cognition (PSYC 2150) |
| 2009 | Introduction to Perception (PSYC 2300) |

Graduate School Awards and Honors

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|------|-------------------------------------------------------------------------------|
| 2015 | Robert J. Huskey Research Exhibition – 3rd Place Oral Presentation Award |
| 2014 | Collaborative Graduate Student Research in Big Data Pre-Proposal Travel Award |
| 2013 | Presidential Poster Competition Winner and Travel Award |
| 2013 | Robert J. Huskey Research Exhibition – 2nd Place Oral Presentation Award |
| 2012 | Robert J. Huskey Research Exhibition – 1st Place Oral Presentation Award |
| 2011 | Fellow, LIFE Academy at the Max Planck Institute in Berlin, Germany |

Programming, Statistical, and Technical Skills

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| Programming, Frameworks, & Markup Languages | R, Python, PHP, Java, JavaScript/jQuery, Node.js, SQL, NoSQL, Cordova, Shiny, Dash, HTML/CSS, LaTeX |
| Version Control | Git (see my GitHub) |
| CMS | WordPress, Drupal |
| Statistics | Machine Learning, Model Comparison, Mixed Effects Modeling, Multivariate Statistics, Structural Equation Modeling, Cluster Analysis, Receiver Operating Characteristic (ROC), Monte Carlo Simulation, Time Series Analysis, Natural Language Processing, Sentiment Analysis |
| Statistical Software | SPSS, SAS, Stata |
| Hardware | PC/Mac Desktop and Laptop Hardware Assembly, Disassembly, and Repair |

Languages

English, Hungarian