

Chelsea Ellis Myers

EDUCATION

Master of Statistics, University of Florida May 2006
Bachelor of Science in Journalism, *summa cum laude*, University of Florida May 2004

SKILLS AND CERTIFICATIONS

Programming: Python data science (Pandas, NumPy, scikit-learn, Matplotlib, Plotly, Seaborn), R, SAS, Linux, SQL, Git and GitHub, Excel

Data analytics: Statistics and hypothesis testing, modeling, machine learning, big data and cloud computing, exploratory data analysis, A/B testing, visualization, data cleaning and management

Learning management: Canvas, Salesforce, Slack, Zoom, Loom, Looker

Amazon Certified Cloud Practitioner: 2021 – 2024

BOOK

Myers, Chelsea. [*Project-based R Companion to Introductory Statistics*](#). Routledge, 2021.

PROFESSIONAL TEACHING EXPERIENCE

Course Director

Full Sail University – Data Science and Analytics August 2023 – present

- Course Director for Data Visualization and Modeling, The Artificial Intelligence Ecosystem and User Experience Research Analytics courses spanning the Computer Science, Artificial Intelligence and User Experience degree programs
- Develop course materials to engage adult learners and non-traditional college students in in-person and online learning environments

Curriculum Engineer

ThriveDX – Data Science and Analytics June 2021 – January 2023

- Lead the design of courses in machine learning, big data, advanced SQL and data wrangling for a 10-month Data Science and Analytics Bootcamp certificate program
- Edited and evaluated course material designed by other curriculum engineers
- Collaborated with instructional design and technical editing departments to ensure curriculum design best practices
- Selected as the data science and analytics ADA liaison to ensure ADA compliance of Canvas course materials
- Collaborated on process-improvement projects to establish guidelines for continuously improving and updating curriculum
- Held regular office hours with admissions staff to answer questions about data science and analytics and the data science job market

Instructor

Lambda School – Data Science August 2020 – June 2021

- Taught the Introductory Statistics unit covering data cleaning and management, statistical inference, and linear regression using Python and Pandas
- Worked with curriculum developers as a subject matter expert to redesign the statistics and linear regression curriculum to bring it into line with industry requirements
- These changes raised the pass rate for the Introductory Statistics unit to greater than 75%, which is the highest among the Lambda School data science units
- Continuously revised and enhanced course curriculum including auto-graded assignments

- using CodeGrade, content review questions and solution videos
- Communicated with the student success team and tracked student progress using Canvas, Salesforce, and Looker
- Held technical interview prep office hours for students and alumni

Adjunct Professor

Rollins College – Biology and Mathematics January 2018 – May 2020

- Biostatistics (Fall semester 2018, Fall semester 2019, Spring semester 2020), an upper-level biology class for pre-medical and pre-graduate students covering statistical analysis of medical, ecological, and biological data using R
- Essential Math (Spring semester 2018), a general education mathematics class covering logic, financial literacy, modeling and statistics

Valencia College – Mathematics May 2015 – Present

- Designed and taught more than 50 in-person and online sections of Statistical Methods using Blackboard v9, Canvas and Pearson's MyStatLab applications
- Completed more than 130 hours of professional development training and earned Valencia's Associate Faculty and Digital Professor Certifications

Southern New Hampshire University – Mathematics May – August 2018
March 2020 – August 2020

- Taught intensive, interactive online courses in statistics for STEM majors
- Engaged with students using zyBooks and Codio to master introductory statistical concepts and programming with Python

Central New Mexico Community College – Mathematics August 2007 – July 2008

- Instructor for Statistical Methods, Calculus II, College Algebra, and Liberal Arts Mathematics

RESEARCH AND CONSULTING EXPERIENCE

Assistant Researcher-Biostatistician

University of Wisconsin-Madison August 2008 – August 2018

- Provided statistical and research support for longitudinal population-based epidemiological studies investigating age-related eye diseases, diabetes, cancer and cardiovascular disease
- Analyzed registry data including data from the National Cancer Registry and the National Death Index
- Collaborated with four data managers to ensure inter- and intra-grader reliability among 10 retinal image graders for 5 study grading protocols
- Authored and co-authored more than 30 scientific papers and presentations

Statistical Consultant

Client: ThriveDX January 2023 – December 2023

- Model student retention data and make recommendations for improving outreach to new students

Client: Total Comp Advisors January – March 2019

- Administered and collected data for a compensation survey conducted by Hayattsville, Maryland
- Managed data and provided summary reports for client

Client: Evergreen Solutions September – December 2016

- Analyzed data to determine the effectiveness of an intervention program designed to

- prevent crime, violence and drop-out among at-risk high school students
- Wrote relevant analysis and results sections to be included in an independent K-12 school grant evaluation managed by Evergreen Solutions

PUBLICATIONS

1. Joachim N, Colijn JM, Kifley A, Lee KE, Buitendijk GH, Klein BE, **Myers CE**, Meuer SM, Tan AG, Holliday EG, Attia J, Liew G, Iyengar SK, de Jong PT, Hofman A, Vingerling JR, Mitchell P, Klaver CC, Klein R, Wang JJ. Five-year progression of unilateral age-related macular degeneration to bilateral involvement: the Three Continent AMD Consortium report. *Br J Ophthalmol*. 2017 Jan 20. pii: bjophthalmol-2016-309729. doi: 10.1136/bjophthalmol-2016-309729.
2. Fritsche LG, Igl W, Bailey JN, Grassmann F, Sengupta S, et. al. including **Myers CE**. A large genome-wide association study of age-related macular degeneration highlights contributions of rare and common variants. *Nat Genet*. 2016 Feb;48(2):134-43. doi: 10.1038/ng.3448. Epub 2015 Dec 21.
3. Klein R, **Myers CE**, Lee KE, Paterson AD, Cruickshanks KJ, Tsai MY, Gangnon RE, Klein BE. Oxidized Low-Density Lipoprotein and the Incidence of Proliferative Diabetic Retinopathy and Clinically Significant Macular Edema Determined From Fundus Photographs. *JAMA Ophthalmol*. 2015 Sep;133(9):1054-61. doi: 10.1001/jamaophthalmol.2015.2239.
4. Klein R, **Myers CE**, Lee KE, Gangnon RE, Sivakumaran TA, Iyengar SK, Klein BE. Small Drusen and Age-Related Macular Degeneration: The Beaver Dam Eye Study. *J Clin Med*. 2015 Mar;4(3):424-40. doi: 10.3390/jcm4030425.
5. **Myers CE**, Klein BEK, Meuer SM, Swift M, Chandler CS, Huang GH, Gangaputra S, Pak J, Danis RP, Klein R. Retinal thickness measured by spectral-domain optical coherence tomography in eyes without retinal abnormalities: The Beaver Dam Eye Study. *Am J Ophthalmol*. 2015;159(3):445-56.e1. PMID: 25461295. PMC4329258.
6. Meuer SM, **Myers CE**, Klein BEK, Swift M, Huang Y, Gangaputra S, Pak J, Danis RP, Klein R. The epidemiology of vitreoretinal interface abnormalities and macular cysts and holes as detected by SD-OCT: the Beaver Dam Eye Study. *Ophthalmology*. 2015;122(4):787-95. PMID: 25556116. PMC4372472.
7. Klein BEK, **Myers CE**, Howard KP, Klein R. Serum lipids and proliferative diabetic retinopathy and macular edema in persons with long term type 1 diabetes: the Wisconsin Epidemiologic Study of Diabetic Retinopathy. *JAMA Ophth*. 2015;133(5):503-10. PMID: 25502808. PMC4433425.
8. **Myers CE**, Klein BEK, Gangnon RE, Sivakumaran TA, Iyengar SK, Klein R. Cigarette smoking and the natural history of age-related macular degeneration: The Beaver Dam Eye Study. *Ophthalmology*. 2014;121(10):1949-55. PMID: 24953792.
9. Sabour-Pickett S, Beatty S, Connolly E, Loughman J, Stack J, Howard A, Klein R, Klein BEK, Meuer SM, **Myers CE**, Owusu Akuffo K, Nolan JM. Supplementation with three different macular carotenoid formulations in patients with early age-related macular degeneration. *Retina* 2014; 34(9):1757-66.
10. Klein R, **Myers CE**, Gangnon RE, Klein BEK. Vasodilators and blood pressure lowering medications and age-related macular degeneration: the Beaver Dam Eye Study. *Ophthalmology* 2014; 121(8):1604-11.
11. Klein R, **Myers CE**, Cruickshanks KJ, Gangnon RE, Danforth LG, Sivakumaran TA, Iyengar SK, Tsai MY, Klein BEK. Markers of inflammation, oxidative stress, and endothelial dysfunction and the 20-year cumulative incidence of early age-related macular degeneration: the Beaver Dam Eye Study. *JAMA Ophthalmol* 2014; 1;132(4):446-55.
12. Wang JJ, Buitendijk GHS, Rochtchina E, Lee KE, Klein BEK, Flood V, Meuer SM, Attia J, **Myers CE**, Holliday EG, Tan AG, Smith W, Iyengar SK, de Jong PT, van Duijn CM, Vingerling JR, Mitchell P, Klein R, Klaver CCW. Genetic susceptibility, dietary antioxidants and long-term incidence of age-related macular degeneration in two populations. *Ophthalmology* 2014; 121(3):667-75.
13. Klein R, Meuer SM, **Myers CE**, Buitendijk GHS, Rochtchina E, Choudhury F, de Jong PT, McKean-Cowdin R, Iyengar SK, Gao X, Lee KE, Vingerling JR, Mitchell P, Klaver CCW,

- Wang JJ, Klein BEK. Harmonizing the classification of age-related macular degeneration in the Three Continent AMD Consortium. *Ophthalmic Epidemiol* 2014; 21(1):14-23.
14. Buitendijk GHS, Rochtchina E, **Myers CE**, van Duijn CM, Lee KE, Klein BEK, Meuer SM, de Jong PT, Holliday EG, Tan AG, Uitterlinden AG, Sivakumaran TA, Attia J, Hofman A, Mitchell P, Vingerling JR, Iyengar SK, Janssens CJW, Wang JJ, Klein R, Klaver CCW. Prediction of age-related macular degeneration in the general population: the Three Continent AMD Consortium. *Ophthalmology* 2013; 120(12):2644-2655.
 15. McCanna CD, **Myers CE**, Lee M, Danforth LG, Moore EL, Meuer SM, Klein R, Klein BEK. Variability of measurement of retinal vessel diameters. *Ophthalmic Epidemiol* 2013; 20(6):392-401.
 16. Klein R, Cruickshanks KJ, **Myers CE**, Sivakumaran TA, Iyengar SK, Meuer SM, Schubert CR, Gangnon RE, Klein BEK. The relationship of atherosclerosis to the 10-year cumulative incidence of age-related macular degeneration: the Beaver Dam Studies. *Ophthalmology* 2013; 120(5):1012-1019.
 17. Klein R, **Myers CE**, Meuer SM, Gangnon RE, Sivakumaran TA, Iyengar SK, Lee KE, Klein BEK. Risk alleles in CFH and ARMS2 and the long term natural history of age-related macular degeneration. The Beaver Dam Eye Study. *JAMA Ophthalmol* 2013; 131(3):383-392.
 18. **Myers CE**, Klein R, Knudtson MD, Lee KE, Gangnon RE, Wong TY, Klein BEK. Determinants of retinal venular diameter: the Beaver Dam Eye Study. *Ophthalmology* 2012; 119(12):2563-2571.
 19. Klein R, **Myers CE**, Knudtson MD, Lee KE, Gangnon R, Wong TY, Klein BEK. The relationship of blood pressure and other factors to serial retinal arteriolar diameter measurements over time: the Beaver Dam Eye Study. *Arch Ophthalmol* 2012; 130(8):1019-1027.
 20. Klein R, **Myers CE**, Lee KE, Gangnon R, Klein BEK. Changes in retinal vessel diameter and incidence and progression of diabetic retinopathy. *Arch Ophthalmol* 2012;130(6):749-755.
 21. Klein R, Klein BEK, **Myers CE**. Risk assessment models for late age-related macular degeneration [editorial]. *Arch Ophthalmol* 2011; 129(12):1605-1606.
 22. Greenstein MB, **Myers CE**, Meuer SM, Klein BEK, Cotch MF, Wong TY, Klein R. Prevalence and characteristics of choroidal nevi: the Multi-Ethnic Study of Atherosclerosis. *Ophthalmology* 2011; 118(12):2468-73.
 23. Klein BEK, Klein R, **Myers CE**, Lee KE. Complete blood cell count and retinal vessel diameters. *Arch Ophthalmol* 2011; 129(4):490-497.
 24. Sahakyan K, Klein BEK, Lee KE, **Myers CE**, Klein R. The 25-year cumulative incidence of lower extremity amputations in persons with type 1 diabetes. *Diabetes Care* 2011; 34(3):649-51.
 25. Klein R, **Myers CE**, Lee KE, Klein BEK. 15-year cumulative incidence and associated risk factors for retinopathy in nondiabetic persons. *Arch Ophthalmol* 2010; 128(12):1568-75.
 26. Klein R, Blodi BA, Meuer SM, **Myers CE**, Chew EY, Klein BEK. The prevalence of macular telangiectasia type 2 in the Beaver Dam Eye Study. *Am J Ophthalmol* 2010; 150(1):55-62.e2.
 27. Sahakyan K, Klein BEK, **Myers CE**, Tsai MY, Klein R. Novel risk factors in long-term hypertension incidence in type 1 diabetes mellitus. *Am Heart J* 2010; 159(6):1074-80.
 28. Klein R, **Myers CE**, Klein BEK, Zinman B, Gardiner R, Suissa S, Sinaiko AR, Donnelly SM, Goodyer P, Strand TD, Mauer M. Relationship of blood pressure to retinal vessel diameter in type 1 diabetes mellitus. *Arch Ophthalmol* 2010; 128(2):198-205.

POSTERS AND PRESENTATIONS

1. "Effects of Age and Sex on Retinal Thickness Measured by Spectral-Domain Ocular Coherence Tomography: The Beaver Dam Eye Study" Association for Research in Vision and Ophthalmology (ARVO), May 2014
2. "Effects of Age and Sex on Retinal Thickness Measured by Spectral-Domain Ocular

- Coherence Tomography: The Beaver Dam Eye Study” University of Wisconsin Department of Ophthalmology and Visual Sciences (UW-DOVS) Data Meeting, April 2014
3. “OCT findings updated for retinal thickness” University of Wisconsin Department of Ophthalmology and Visual Sciences (UW-DOVS) Data Meeting, November 2013
 4. “Pulmonary Function, Respiratory Disease and the Incidence of Age-Related Macular Degeneration (AMD): The Beaver Dam Eye Study (BDES)”, Association for Research in Vision and Ophthalmology (ARVO), May 2013
 5. “Pulmonary Function, Respiratory Disease and the Incidence of Early and Late Age-Related Macular Degeneration: The Beaver Dam Eye Study.” UW-DOVS Data Meeting, April 2013.
 6. “Three Continent Consortium Lipids and Lipid Pathway Genes and the Incidence of AMD: A Meta-analysis”, UW-DOVS Data Meeting, February 2013
 7. “Retinal Thickness Measures Using Spectral Domain Ocular Coherence Tomography”, UW-DOVS Data Meeting, September 2012
 8. “Cigarette smoking, Complement Factor H and the Risk of Age-Related Macular Degeneration in the BDES”, UW-DOVS Data Meeting, August 2012
 9. “Vasodilator Use and the Incidence of Age-Related Macular Degeneration”, UW-DOVS Data Meeting, July 2012
 10. “The Association of Lipid Levels and Atherosclerosis to the Incidence and Progression of Age-Related Degeneration and its Defining Lesions”, UW-DOVS Data Meeting, December 2011
 11. “Variability of Retinal Vessel Measurements”, UW-DOVS Data Meeting, October 2011
 12. “The Relationship of Blood Pressure and Blood Pressure Medication Use to Change in Retinal Arteriole Measurements: The Beaver Dam Eye Study”, Association for Research in Vision and Ophthalmology (ARVO), May 2011
 13. “The Relationship of Blood Pressure and Blood Pressure Medication Use to Change in Retinal Arteriole Measurements: The Beaver Dam Eye Study.” UW-DOVS Data Meeting, April 2011
 14. “Change in Retinal Vessel Measurements over a 15-Year Period in the Beaver Dam Eye Study”, UW-DOVS Data Meeting, October 2010
 15. “Contrast Sensitivity and Visual Quality of Life”, Society for Epidemiologic Research (SER), June 2010
 16. “Retinal Vessel Diameters and Incident Proteinuria in Women of Child Bearing Age with Type 1 Diabetes”, Association for Research in Vision and Ophthalmology (ARVO), May 2009

AWARDS AND CERTIFICATIONS

- March 2021 – March 2024 Amazon Web Services Certified Cloud Practitioner
- January 2017: Valencia Digital Professor Certification
- June 2016: Valencia Associate Faculty Certification
- May 2013, 2011, 2009: University of Wisconsin Academic Staff Professional Development Grant for travel to attend and present at the Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting

REVIEWER

1. Journal of the American Medical Association Ophthalmology
2. The American Journal of Hypertension
3. International Journal of Ophthalmology