

Daniel Zurek

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Technical Skills

- Techniques** Supervised & Unsupervised Machine Learning, Deep Learning, Data Visualization, Statistical Analysis, Experimental Design, Image & Video Processing.
- Languages & Tools** Python (e.g. Scikit-learn, Pandas, Keras, Flask, Seaborn, Jupyter), SQL, R (e.g. ggplot2, Shiny, Keras, rvest), MATLAB, TensorFlow, JMP, GitHub, Tableau, Adobe CC, Final Cut Pro.
- Data Projects** [UFC Oracle](#): neural network based app that predicts outcomes of MMA fights (~76% accuracy).
[Field cars](#): app to aid decision making when booking rental cars for field work.
[Spider gaze](#): interactive visualization, semi-finalist for NSF Visualization Challenge 2018.

Experience

- Sep 2018 – Oct 2018** – **Data Science Fellow – Insight Data Science**
- Created [ScoopTube](#), a parenting tool to analyze content of YouTube videos.
 - Used tf-idf vectorization to train LR classifiers on >33,000 audio transcripts and news articles, identifying educational vs. shallow content and political bias with >81% accuracy.
 - Deployed web app combining custom models with Google Cloud AI based topic and sentiment analysis, using Flask, Heroku, Redis, and AngularJS.
- May 2017 – Apr 2018** – **Postdoctoral Fellow – University of Cincinnati** (Morehouse Lab)
- Developed custom methods for video analysis, incl. object identification using ConvNets.
 - Collected, cleaned, and analyzed over 60GB of multi-perspective tracking data.
 - Established data management system using Open Science Framework and Jupyter.
 - Contributed to securing \$1.9M in federal funding.
- May 2014 – Dec 2016** – **Postdoctoral Associate – University of Pittsburgh** (Morehouse Lab)
- Research Team Lead, managed workgroup of 12 junior researchers.
 - Analyzed complex behavioral data using logistic regression, GLMM, and circular statistics.
 - Secured \$730K in federal funding with ambitious pilot study under tight deadline.
- Feb 2016 – May 2016** – **Grant Officer – Experiment.com**
- Ran *Challenge Grant* program for scientific crowdfunding.
 - Trained research teams in science communication, leading to 8 funded initiatives.
- May 2012 – Apr 2014** – **Postdoctoral Associate – Cornell University** (Gilbert Lab)
- Cornell Certificate of Postdoctoral Leadership.
 - Developed computer vision tool for high-speed video analysis in MATLAB.
 - Published peer-reviewed guide on reproducibility in biological color research.
- Apr 2008 – Aug 2008** – **Consultant – Google** (Contractor via Lionbridge Intl.)
- Performance assessment & fraud detection for pre-launch Google services

Education

- Sep 2012** **Ph.D. in Brain, Behaviour, and Evolution – Macquarie University** Sydney, Australia
- Vice Chancellor's Commendation (Highest Distinction).
- Jul 2007** **Diplom - Biologie (MSc. equiv) – Universität Kassel / Max Planck Institut Stuttgart** Germany