# Michael Horvath Resumé

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# **SUMMARY**

Michael is a Kansas City native, with a fierce interest in artificial intelligence and human cognition. With a background in Psychology and Statistics from the University of Kansas, he is currently exploring machine learning from the ground up. While he may put you to sleep explaining how cool it is that machines can learn at all, you might find it more enjoyable to ask about his dog Bruno. Check out his latest work over at github.

## **WORK**

#### Contractor

Data Scientist

Developed a neural net constructor from the ground up in Elixir, with flexibility concerning training techniques, neural density, supervised learning, and unsupervised learning.

► Elixir, Erlang, neural nets, learning algorithms.

Deployed various TensorFlow machine learning programs, ranging from style-transfer to binary-classification, regression, and multi-class classification, on Google Cloud Computing platform to evaluate performance across various hyperparameters. Explored optimal neural net configurations and validation techniques.

- ► Python, Elixir, numpy, scipy, TensorFlow, Node.js.
- ► Machine Learning, Keras libraries, nVidia Cudda libraries, Google Cloud Computing, K-fold validation.

### University of Kansas (Lawrence, KS)

Center for Research Methods and Data Analysis

Program Evaluation Consultant, 2010 - 2011

Reconstructed, tested, and validated the ARC Self-Determination Scale - a 72 item self-report metric for use in reporting self-determination among students with learning disabilities. Presented findings to authors and collaborators. New version, with shortened length and increased validity and reliability is included in the latest iteration of the National Longitudinal Transition Study (NLTS-2), administered by the Department of Education.

- ► SAS, LISREL, MPLus, R, Matlab, SPSS.
- Structural equation modeling, power analysis, validity testing, missing data, bootstrapping.

Acted as liaison between Program Evaluation Team and clientele to explain technical results and communicate project goals.

Developed, deployed, and administered training grant evaluation surveys for use with various interdepartmental assessments. Presented findings to Program Evaluation Team, stakeholders, and research symposium.

- ► Data entry, cleaning, and database manipulation.
- Powerpoint, version control, meeting notes, proofreading.

# **MH Properties**

Property Manager, 2009 - 2015

Managed and maintained rental beween 4 and 60 rental units. Responsibilities included leasing, advertising, accounting, and contractor oversight.

# **Benchmark Construction**

Carpenter, 2013

# **EDUCATION**

# University of Kansas (Lawrence, KS)

BA in Pyschology and Quantitative Methods, with Honors, 2006 - 2011

► Courses in advanced statistics including multivariate power analysis, ANOVA, MANOVA, multiple imputation, linear regression, multiple regression.

# University of Osnabrueck (Germany)

Semester Abroad in Cognitive Science and AI

- Courses in philosohpy of the mind, human cognition, and human categorization behavior.
- ► Converstaionally fluent in German.

# **AWARDS**

# CalTech Signature Award

CalTech, 2006

► Innovative and Creative thinking in mathematics and sciences\*

# National Merit Scholar

University of Kansas, 2006 - 2011

Outstanding academic and extra-curricular achievement