PAYTON J. JONES, Ph.D.

Email: paytonjjones@gmail.com Phone: 425-367-2939

Harvard STEM PhD | 6+ Years Experience | From Research to Production-Driven ML

EXPERIENCE

Staff Machine Learning Engineer Jun. 2025 – Present
MyFitnessPal

- Develop machine learning solutions for deep personalization in search, food logging, and user experience
- Engineer new AI features leveraging state-of-the-art LLMs
- Mentor team members and improve the maturity, reliability, and scalability of machine learning capabilities, creating and maintaining MLOps services

Senior Data Scientist Apr. 2024 – Jun. 2025
Moloco

- As Tech Lead, lead and mentor a small group to analyze, manage, and improve a massive ad-tech data ecosystem including internal and third-party data with billions of records
- Design, execute, and analyze complex experiments for ML strategies directly impacting customers with eight-figure ad spend
- Conduct ads performance research on ML systems to drive operational success

Senior Machine Learning Engineer Mar. 2021 – Apr. 2024
Pluralsight

- Built and scaled production-level deep learning recommenders to millions of users, handling variable request volumes with <50ms latency, extending personalization to +44.3% of users
- Wrote and committed production code daily, creating and deploying production ML services via Tensorflow 2.0 deployed in the AWS ecosystem
- Fine-tuned and utilized large language models to produce marketable data products including customer-facing trends and insights

Data Scientist May 2020 – Mar. 2021
Pluralsight

- Used a graph theory approach to enhance machine learning algorithms for content recommendation
- Developed scalable analytic solutions and presented results to senior product leadership

Data Scientist Nov. 2019 – May. 2020
Hyka Therapeutics

- Developed recommendation algorithms for therapeutic content deliverables
- Designed and implemented user-facing dashboards and real-time mental health data visualizations

EDUCATION

Harvard University Aug. 2016 – Mar. 2021
Experimental Psychological Science, PhD

- Developed and published 3 open-source R data science packages

- Published 29 peer-reviewed articles and delivered 20 conference presentations
- Awarded the National Science Foundation Graduate Fellowship ($138,000)

Harvard University Aug. 2016 – Apr. 2019
Psychology, MA

- Excelled in graduate courses on machine learning, Bayesian statistics, and psychometrics
- Completed a thesis developing 4 novel statistical metrics for network science applications

Brigham Young University Jan. 2011 – Apr. 2016
Psychology, BS

- GPA 4.0, Summa Cum Laude
- GRE: Verbal 169 (99%), Quantitative 168 (95%), Writing 5.5 (98%)

SKILLS

Software
-Languages: Python, TypeScript, R
-Major Tools: TensorFlow, Amazon Web Services (AWS Batch, Lambda, EC2, S3, DynamoDB, CDK), Docker, Apache Airflow, Kubernetes, tfjs, Postgres, Redis, Snowflake, Kafka, FastAPI, GCS, BigQuery, Cloud Run
-Libraries: Python (TensorFlow, pytorch, pandas, scikit-learn, matplotlib, fastText, openai), R (dplyr, ggplot2, lme4, vertexai)
-Other: Git, GitLab, Visual Studio Code, Jupyter Notebook, ClearML

Machine Learning and Analysis
-ML: recommenders, neural networks (two-tower, GRU, VAE), LLMs NLP, & generative AI (OpenAI API / GPT, Gemini, BERT), multi-armed bandits, reinforcement learning, trees, random forests, bagging/ boosting
-Statistics: networks (graph theory), PCA, MDS, psychometrics
-Other: regression, text analysis

Interpersonal Skills
-Strong analytical skills
-Excellent team player
-Detail oriented
-Strong public speaker

Work Style & Methodologies
-Test-driven development
-Production-ready code
-Collaboration via pairing and mobbing
-Agile development

OPEN-SOURCE SOFTWARE

Jones, P. J., Simon, T., Zeileis, A., & Mair, P. (2019). networktree: Recursive partitioning of network models. *R package version 0.2.2.* Repo

Jones, P. J. (2017). networktools: Assorted tools for identifying important nodes in networks. *R package version 1.2.0.* Repo

van Borkulo, C., Epskamp, S., & **Jones, P. J.** (2019). NetworkComparisonTest: Statistical comparison of two networks based on three invariance measures. *R package version 2.2.1.* Repo

SELECTED PUBLICATIONS

Jones, P. J., Mair, P., Simon, T., & Zeileis, A. (2020). Network trees: A method for recursively partitioning covariance structures. *Psychometrika.* DOI

Jones, P. J., Ma, R., & McNally, R. J. (2019). Bridge centrality: A network approach to understanding comorbidity. *Multivariate Behavioral Research*. DOI