

ADRIAN E. RADILLO, PH.D.

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Senior Data Scientist and Full-Stack Statistical Modeler with over 5 years of enterprise experience deploying mathematical models into production environments and architecting end-to-end applications. Expertise spans rigorous Bayesian statistics, predictive modeling, and full-stack web architecture (Python, FastAPI, NextJS, Linux VPS). Proven ability to lead cross-functional offshore engineering teams and drive complex system modeling. Seeking a Senior Data Scientist or Backend Engineering role within enterprise infrastructure to optimize system reliability, network data modeling, and performance.

TECHNICAL SKILLS

Languages	Python (Advanced), JavaScript/TypeScript, SQL, R.
Backend & Infrastructure	Linux Server Administration, Apache Service Management, Virtual Private Servers (VPS), FastAPI, Git, CI/CD pipelines.
Frontend	NextJS, React, Modern Web App Architecture.
Data Science & Mathematics	Bayesian Decision Theory, Statistical Inference, Probabilistic Modeling, Timeseries Analysis, Temporal Modeling.
Leadership	Agile Project Management, Offshore Team Leadership, Cross-Functional Technical Direction.

PROFESSIONAL EXPERIENCE

Independent Software Developer & Researcher

2026 - Present

Self-Employed

Philadelphia, PA

- Architected and deploying a full-stack Knowledge Management and Debating web application serving live traffic via Apache on a Linux VPS.
- Engineered the backend using FastAPI and Python, ensuring low-latency data retrieval and robust API integration.
- Developed a highly responsive frontend using NextJS and modern JavaScript frameworks.
- Managed end-to-end infrastructure, including server provisioning, multi-domain management, network security, and database architecture.
- Conducted continuous independent research into mathematical psychology, metaphysics, and complex systems modeling. <https://doi.org/10.5281/zenodo.19058514>

AI Data Scientist

2020 - 2025

Chubb (*insurance*)

Philadelphia, PA

- Developed the Python ML backend of a timeseries anomaly detection web app, now being used across 3 regions for Business analytics and financial risk management.
- Designed and developed a Root-Cause Analysis module for KPI timeseries anomalies relying on XGBoost predictive modeling and SHAPley values.
- 2+ years of heavy cross-functional communication with UI, Business stakeholders, and IT teams to deliver two high-impact analytics products into production, while securing Business and leadership buy-in. The total company budget for both projects was around USD 30M.
- Developed and maintained a Django web app for human labeling of webtext. The collected labels were used to fine-tune a Bert model used in production. The whole system is saving the company hundreds of hours of underwriting time per year.
- Setup the job and tracking infrastructure on Databricks and MLFlow to run experiments for an Operations Research project. Setup the CI pipeline for IT handoff.
- 4+ years of end-to-end predictive model building for the insurance industry (GLMs, XGBoost).

Mathematics Educator
French Agricultural High School

Late 2025 - Early 2026
France

- Instructed secondary students in foundational and advanced mathematics during a 6-month, purpose-driven teaching engagement.

Postdoctoral Researcher
University of Pennsylvania

2018 - 2020
Philadelphia, PA

- Designed and ran a human [Psychophysics experiment](#) investigating temporal information filtering in perceptual decision making.

EDUCATION

Ph.D. Mathematics, University of Houston 2014 - 2018
Dissertation: Optimal decision making models in changing environments ([pdf](#))

B.Sc. Mathematics, University of Warwick 2011 - 2014

M.A. Clinical Psychology, Ecole de Psychologues Practiciens 2004 - 2009

SELECTED PUBLICATIONS

- Adrian E. Radillo, Alan Veliz-Cuba, Krešimir Josić, Zachary P. Kilpatrick; Evidence Accumulation and Change Rate Inference in Dynamic Environments. *Neural Comput* 2017; 29 (6): 1561–1610. doi: https://doi.org/10.1162/NECO_a_00957
- Adrian E. Radillo, Alan Veliz-Cuba, Krešimir Josić, and Zachary P. Kilpatrick. [Performance of normative and approximate evidence accumulation on the dynamic clicks task](#). *Neurons, Behavior, Data analysis, and Theory*, 2, September 2019. doi: <https://doi.org/10.48550/arXiv.1902.01535>
- Radillo, A. (2009). L'expérimentation de l'utilisation des jeux vidéo en remédiation cognitive. *Enfances & Psy*, 44(3), 174-179. <https://doi.org/10.3917/ep.044.0174>.
- Radillo, A., & Virole, B. (2010). *Cyberpsychologie: Remédiation des apprentissages, pratiques thérapeutiques, analyse des comportements*. Dunod.