Michael Shaughnessy

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Skills: AWS, Linux, Python, SQL, Machine Learning, Data Engineering, Distributed Systems

EXPERIENCE

Co-founder, The Mithril Company *July 2024 - Present*
- Developed RSX Protocol for monetizing remnant robot labor
- Created COBRA digital countermeasures security suite

Technical Fellow, VDX.tv *April 2019 - July 2024*
- Developed ML models for automated decision-making and identity resolution
- Built and operated data platform for end-to-end model training handling billions of requests
- Benchmarked RTB, identity and location data for ML targeting system

Machine Learning Team Lead, AppThis, LLC (Acquired 2018) *2016 - 2019*
- Increased revenue/profit 30% through automated routing of mobile app install traffic
- Built prediction API handling 600M+ requests/day with <50ms latency
- Implemented multi-armed bandit/reinforcement learning for model selection

VP of Engineering, Leap Year Technologies *2015*
- Defined and implemented differentially private data analytics algorithms
- Delivered proof-of-concept software to enterprise customers

Data Scientist/Engineer, RTBiQ, Inc *2014 - 2015*
- Deployed ML system for RTB advertising that reduced costs by 50% and identified fraud

R&D Engineer, Synopsys TCAD *2013 - 2014*
- Integrated quantum mechanical methods into TCAD software for III-V semiconductor simulation

Postdoctoral Researcher, Sandia National Labs *2011 - 2013*
- Supported nuclear reliability missions through ML, molecular dynamics, and electronic structure calculations

Lawrence Scholar, Lawrence Livermore National Lab *2009 - 2011*
- Identified new magnetic alloys for permanent magnet and spintronic applications

EDUCATION

PhD, Physics, University of California, Davis *2011*
Electronic and Magnetic Structure in Doped Semiconductors

BS, Agricultural and Biological Engineering, Cornell University *2004*

PATENTS & PUBLICATIONS

9 Patents including: Differentially private processing (US 20170126694 A1), Adaptive Parallelization for Multi-Scale Simulation, First Principles Design Automation Tool, DFT simulation methods

15+ Publications in *Physical Review B*, *Journal of Applied Physics*, *Applied Physics Letters*, *Nanotechnology*, *Biomaterials*, and other peer-reviewed journals (2008-2016)