Meghanath Macha

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LINKS: Google Scholar , Justia Patents, Git   PHONE: +14124820350, U.S Permanent Resident.

EDUCATION

AUGUST 2016 - 2021	Doctor of Philosophy, Carnegie Mellon University, Pittsburgh.
THESIS	Value and Trade-offs in Consumer Location Data.
COURSES	Machine Learning, Statistics, Convex Optimization, Data mining, Econometrics
AUGUST 2009 - 2014	Masters and Bachelors of Science, Indian Insitiute of Technology, Kharagpur.
	INSTITUTE SILVER MEDALIST

AREAS OF EXPERTISE

ML FRAMEWORKS	Expertise in ML frameworks (PyTorch, TensorFlow, XGBoost, LightGBM); proficient in recent NLP and GenAI frameworks like Axolotl, LitGPT, HF AutoTrainer.
PRODUCT INNOVATION	Led product development from ideation to launch, notably Adobe GenStudio Create, utilizing LLMs to scale marketing content creation processes.
DATA ENGINEERING	Designed and managed end-to-end big data systems, capable of processing 300M+ daily data points, with comprehensive ETL to inference operations in multi-tenant setting.
ML SERVICES	Trained and deployed ML services for real-time fraud detection, logo detection, and text extraction integrated with Firefly Content Tagging Services
INTELLECTUAL PROPERTY	Active in IP creation, contributing to 15+ patents and 10+ papers in prominent ML and Management conferences and journals: KDD, WebConf, DMKD, ISR.
BUSINESS DEVELOPMENT	Effectively articulated the value of ML services in meetings with C-suite and Executive audiences, pivotal in securing Fortune 500 clients driving revenue growth (xM$ ARR).

PROFESSIONAL EXPERIENCE

JAN 2022 - PRESENT	SENIOR MACHINE LEARNING ENGINEER, Adobe, San Jose. Pioneered the "Garage Week" project, using LLMs for scalable marketing content creation. Trained LLMs for Adobe's first AI-driven marketing campaign. (4 patents filed)
MARCH 2021 - JAN 2022	MACHINE LEARNING ENGINEER, Experience Cloud, Adobe, San Jose. Trained, deployed, and scaled deep learning models for real-time fraud detection, logo detection, and text extraction. (2 patents, 2 papers at KDD)
MARCH 2020 - MARCH 2021	FOUNDING ENGINEER, Stealth Startup, Carnegie Mellon University, Pittsburgh. Led a team of 4 engineers to develop an end-to-end system processing 300M+ daily location data points for dynamic audience targeting. Directed ETL processes, profile generation, and automated ML model training and inference tasks. (2 patents filed)
SUMMER 2017, 2019	MACHINE LEARNING INTERN, Data Science Lab, Adobe, San Jose. Developed ML models during two internships: a semi-supervised learning algorithm for consumer segmentation, a sequential deep learner for web session event detection (2 patents, 1 paper at WWW), and an outlier detection algorithm for real-time fraud (1 paper at PKDD).
JUNE 2014 - JULY 2016	RESEARCH ASSOCIATE, Digital Marketing Research, Adobe, India. Developed supervised and unsupervised techniques to quantify and evaluate the efficiency of marketing campaigns. Designed predictive and descriptive tools for marketers to target consumers efficiently. (3 papers at WISE, KDD; 6 patents filed.)

SELECTED RESEARCH PUBLICATIONS

(full list of papers and patents)

1. **Meghanath Macha**, Beibei Li, Natasha Zhang Foutz, and Anindya Ghose, "Perils of Location Tracking? Personalized and Interpretable Privacy Preservation in Consumer Trajectories", Information Systems Research.

2. **Meghanath Macha**, and Leman Akoglu, "X-PACS: Explaining Anomalies by Characterizing Subspaces." Data Mining and Knowledge Discovery Special Issue, 2018. (website)

3. **Meghanath Macha**, Deepak Pai and Leman Akoglu, "ConOut : Contextual Outlier Detection : An Application to Ad Fraud" Proceedings of ECML PKDD 2018 (website)

SELECTED AWARDS

1. **Institute Silver Medal** for holding the highest GPA in my department during 2009-14.

2. **Best Paper Award** Workshop on Information Technologies and Systems (WITS) 2019.