Ian Schillebeeckx

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EDUCATION

Washington University in St. Louis   St. Louis, MO
PhD, Computer Science (Computer Vision) – Fastest graduation in department history   *2012 – 2016*

Saint Louis University   St. Louis, MO
Honors BS, Computer Science   *2007 – 2011*
Honors BS, Applied Mathematics

EXPERIENCE

VP of Enterprise Data Science and AI   January 2025 – Present
CareDx, Inc.   *San Francisco, CA*

- Drove enterprise AI transformation to 92% Copilot adoption (∼750 employees); authored and secured executive approval for company-wide AI Use Policy; established KPI-driven governance framework tracking productivity gains (8% annual hours saved)
- Pitched and secured $1M for RAG-based knowledge platform deployed company-wide; directed LLM application producing 12 research manuscripts for Medical Affairs; established operational frameworks for responsible AI deployment
- Built LLM agent scoring Target Product Profiles (TPPs) against rubric on market potential and technical feasibility, directly informing company's 5-year product roadmap and portfolio prioritization
- Established company's first Data Science function outside R&D; became go-to AI/analytics partner to CEO, CFO, and COO spanning Commercial, Operations, R&D, Medical Affairs, Finance, and Billing
- Built forecasting capability from scratch (∼75% of revenue), reducing error from 6% to 0.9%; deployed Streamlit dashboard with automated 90-day revalidation integrated into quarterly/annual planning
- Directed development of predictive churn system covering $270M revenue; applied causal inference (DAGs, Causal Forests) to drive 10% revenue increase through analytics-driven interventions

VP of Data Science   January 2024 – January 2025
CareDx, Inc.   *San Francisco, CA*

- Led R&D Data Science organization (14 people, $6M budget) spanning Bioinformatics, Statistics, and Data Science teams; reported to CSO with Board of Directors participation
- Directed development of longitudinal patient journey model using LSTM to predict outcomes from sequential measurements (∼1200 patients, ∼5000 time points), outperforming traditional ML approaches; presented at international conference (top 10%)
- Directed development and validation of two production ML models (SVM, LASSO) achieving regulatory deployment in clinical diagnostics
- Oversaw enterprise BI portfolio of ∼20 Tableau dashboards spanning Customer Ops, Sales, Manufacturing, and CLIA Lab; delivered operational and strategic reporting to cross-functional leadership

Head of Product and Data Science   December 2017 – January 2024
Cofactor Genomics   *San Francisco, CA*

- Designed, trained, and launched 2 ML-based diagnostic products in CAP/CLIA regulated environment; owned end-to-end product lifecycle from ML development through clinical validation to commercial launch
- Architected ML infrastructure: model repository, training data platform (100s GBs), and AWS Batch pipeline (+200% speed, -25% cost); established governance for model versioning and deployment
- Designed and powered multi-center clinical validation study (∼500 subjects, 12+ sites) using CMH, Fisher Exact, and McNemar tests; achieved regulatory approval enabling commercial revenue
- Defined multi-year product roadmaps and company-wide OKRs; designed KPIs for ML model performance monitoring across the organization
- First author on Nature ML paper (2nd most downloaded in 2022) and 3 AI patents

SELECTED PUBLICATIONS & PATENTS

3 Artificial Intelligence Patents – Methods for immune response prediction, cellular state determination, and data processing using AI/deconvolution

ML-based Biomarker for Immunotherapy Response – *Nature Scientific Reports, 2022 (2nd most downloaded)*

4 Computer Vision Publications – *CVPR, ECCV, ICCP, 3DV (2014-2016)*

Technical Skills

AI/ML: Deep Learning (LSTM, CNNs), Classical ML (SVM, LASSO, Random Forests), Causal Inference, Predictive Modeling, Model Monitoring & Explainability

Generative AI: LLM Applications, RAG Architecture, Agentic AI, Copilot/Codex Integration, Enterprise AI Transformation

Infrastructure: AWS (Batch, SageMaker), Databricks, ML Model Repositories, Training Data Platforms, Docker

Governance: AI Operational Frameworks, KPI Design, Model Versioning, Responsible AI Deployment

Languages: Python, R, SQL, MATLAB

Leadership: Cross-Functional Collaboration, Executive Communication, OKRs, Product Roadmapping, Change Management