@ datasciencenik@gmail.com
www.linkedin.com/in/drnikunj
github.com/nik-maheshwari/
www.drnikunj.com

# Nikunj Maheshwari, PhD

## Summary


- Experienced data science leader with expertise in managing cross-functional teams, implementing AI strategy and advanced analytics, and developing innovative data-driven solutions to address complex business problems
- Created two award-winning/commercialised products


## Skills

- Strong leadership and team management skills with a track record of delivering analytical use-cases of organisational value, creating products and experiences for clients
- Strong expertise in data science and analytics, data management, and data governance
- Ability to translate technical to non-technical audiences
- Experience in writing AI strategy and recommendation reports
- End to end cross-functional ML solutions development – Design, Resourcing, Execution, Adoption
- Ensure business strategy and cultural transformation is led and informed by data
- Extensive experience in Python, R, Perl and SQL
- Data Science – LLMs, Supervised, Unsupervised, Anomaly Detection, Time Series
- Cloud - Azure, DevOps, Databricks
- Visualisation – Seaborn, Plotly, RShiny, PowerBI, Tableau
- Big Data – Hadoop, Spark (Python/R)
- Others – MLFlow, Git, MLOps, DataHub, Docker, Agile, CRISP-DM, Linux/Windows

## Work Experience

**Founding Data Scientist (Full time, Permanent)** **Jun 2026 - Present**
Illumia, Limerick, Ireland

- Growing a team to create AI products for Transact Campus using Databricks on Azure - use case includes Fraud detection, wait time prediction, and Ai-led data assets monitoring
- Role includes setting up AIOps strategy and implementation for clear model monitoring and governance - advising on best data science and engineering practices

**Senior Manager, Data Science (Full time, Permanent)** **Nov 2020 – Jun 2026**
Ernst & Young, Limerick/Dublin, Ireland

- Led the modelling team for a healthcare client during the pandemic, analysing and forecasting bed occupancy and testing for the Irish hospitals; instrumental in managing capacity and achieving operational efficiency. Forecasts were used by the Irish government and hospitals to drive policy changes
- Core team member of EY Ireland AI Labs. Fostered a culture of innovation and continuous learning within the data science teams, encouraging experimentation and the adoption of emerging technologies (AI Labs)
- Assisted in delivering the AI strategy and recommendations for the Irish government
- Leading data science projects, managing a team of data scientists and analysts, and delivering data driven insights and stories; communicating value to senior internal/external stakeholders
- Designed and built an end-to-end open source analytics platform for a government client – for large complex data ingestion, exploration and visualisation, along with model development and management in development and production environments – conducted several client sessions/workshops for efficient user adoption and experience. First nationwide fraud prediction model deployed and actively used by the client
- Led sales and business development initiatives – brought in over €350k through new and existing clients
- Experienced in budgeting, scoping out requirements, sprint planning, and adhering to legal and risk compliance
- Mentoring and coaching junior and senior team members in machine learning solution design and execution
- Grew the Limerick team from 2 to 11 people, including a new graduate programme and hiring process
- Founder of Data Science Community within EY Ireland to organise live coding sessions, workshops, external speakers, etc. on new technologies and tools along with implementing best data practices and strategies

**Data Science Course Instructor (Full time, Contract)** **May 2020 – Nov 2020**

Coursera Inc., Dublin, Ireland

- Designed, created and recorded guided projects in the fields of data science, machine learning and computer science, both in R and Python - https://www.coursera.org/instructor/nikunj-maheshwari
- Delivered projects with code, explanations, and assessment to >10000 learners worldwide
- Inspired learners through hands-on projects and providing constructive feedback

**Analytics Manager (Full time, Permanent)** **Nov 2019 – May 2020**

Group Internal Audit, Bank of Ireland, Dublin, Ireland

- Led and developed end-to-end analytical dashboards to visualize Operational and quality metrics and Customer impact for several portfolios (Mortgages, Car Finance, Business Banking, and Corporate Banking)
- Undertook integrated and individual data analytics assignments for senior management pertaining to Credit, Capital, and Customer Conduct for Retail and non-Retail products and services
- Converted business requirements into actionable insights and usable MI by joining large internal and external data sources using SQL and Hive, and carrying out analyses using Python and Tableau
- Established and strengthened internal and external stakeholder relationships

**Lead Data Scientist (Full time, Contract)** **Sep 2018 – Oct 2019**

National Institute for Bioprocessing Research and Training (NIBRT), Dublin, Ireland

- Designed and developed a novel, cutting-edge Quality Control (QC) monitoring and analytical platform for controlling and analysing biopharmaceutical manufacturing processes, and forecasting and predicting risk
- Deployed Hadoop and Spark (backend), and RShiny and Plotly (frontend) application
- Responsible for storing, accessing, cleaning, and manipulating data via Spark and SQL pipelines
- Led the team for the development and deployment of machine learning models
- Provided strategic recommendations to senior management for improving process quality and final product yield
- Funded by IDA and Siemens Ireland, winner of 2019 Pharma Awards (Pharma Awards 2019)

**Statistical Modeller (Full time, Contract)** **Oct 2017 – Aug 2018**

Centre for Food Safety, University College Dublin, Dublin, Ireland & Creme Global, Dublin, Ireland

- Planned, designed, and executed innovative data analytics solution for Ireland's 5 largest food manufacturing companies – within 8 months. Solution is licensed out to Crème Global
- Gathered and formatted complex large-scale NGS microbiome data, and designed and coded ingenious machine learning models to (i) identify factors increasing/decreasing risk, and (ii) predict overall risk
- Articulated modelling outputs (using smart visualisations) with business partners resulting in effective changes in their production lines to prevent growth of pathogenic bacteria
- Industry funded project (Enterprise Ireland, Crème Global and 5 Irish food manufacturers) - Food Safety

**PhD Graduate - Computational Infection Biology** **Sep 2013 – Sep 2017**

Conway Institute (Prof. Denis Shields lab), University College Dublin, Dublin, Ireland

- Designed and executed statistical analyses of 2785 bacterial genomes using custom-built automated pipelines
- Developed and utilised machine learning models and statistical techniques to predict bioactivities of peptides
- Mentored and guided undergrad and graduate students for their projects in bioinformatics and machine learning
- Enhanced science communication by attending and organising conferences and symposiums, resulting in 9 presentations in oral and poster format (including Best Oral presentation award)

**Research intern - Molecular modelling** **Jan 2013 – Jun 2013**

CSIR - Institute of Genomics and Integrative Biology, New Delhi, India

- Created structural models of peptides based on replica exchange molecular dynamics (REMD) simulations
- Gathered experience in remote data management, and running bash scripts on supercomputer

**Research project - Structural bioinformatics** **May 2012 – Sep 2012**

King's College London, London, UK

- Analysed over 400 protein complexes for their backbone hydrogen bonds, which led to identification of vulnerable bonds at the interfaces which differentiates transient and obligate protein complexes
- Gained experience in performing text mining (Perl) and statistical analyses (R)

**Research project - Bioinformatics** **Jan 2011 – May 2011**

SASTRA University, Thanjavur, India

- Developed and implemented a classifier to classify snake toxins proteins (analysed >850 toxin sequences)
- Converted the predictor to a webserver which was later published as TFTX server
- Organised and attended national level conferences, leading to Best Innovator category presentation award

## Education

**PhD in Computational Infection Biology, Sep 2013 - Sep 2017,** University College Dublin, Ireland
**MSc in Bioinformatics, Sep 2011 - Sep 2012,** King's College London, UK
**BTech in Bioinformatics, Jul 2007 - May 2011,** SASTRA University, Thanjavur, India

## Awards, honours, and hobbies

Recipient of Wellcome Trust PhD scholarship amounting to €183,271
Designed and coded my personal blogging website (www.drnikunj.com)
Mountain climber (Kilimanjaro and Toubkal), chef, footballer, cyclist, globetrotter