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| @datasciencenik@gmail.com | | | |
| Nikunj Maheshwari, PhD | |  | www.linkedin.com/in/drnikunj/ |
| [www.drnikunj.com](http://www.drnikunj.com/)  Summary | | | |
| • | Data scientist with 6+ years of experience in machine learning, data analytics and statistics, solving | | |

real world business problems through data   
•Innovator, eccentric, outside of the box thinker – Created two award-winning/patentable products •Self-starter – Designed my own PhD project and submitted it 1 week before deadline   
•Tireless – Energetic and passionate about resolving customer problems/issues   
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Strategic thinker with strong analytical and creative problem-solving skills •Quick learner and enjoys mastering new technologies and techniques   
•Coaching professionals in data science and coding through First Tutor website [(shorturl.at/otvVY)](http://www.shorturl.at/otvVY) •Stamp 4 holder (full permission to work in the Republic of Ireland), 1 month notice period

Skills 

•Extensive experience in R (8+ yrs), Perl (6+ yrs), Python (3+ yrs) and databases (SQL and MongoDB) •Visualisation tools/packages – PowerBI, Tableau, Plotly, RShiny   
•Big Data technologies – Hadoop, Hive, MapReduce, Spark (Python/R)   
•ML algorithms – Supervised, Unsupervised, Semi-supervised, Reinforcement   
•Familiar with other languages/technologies such as Scala, Java, C, C++, PHP, CSS, and HTML •Others – Jupyter, Cloudera, TCP/IP, Confluence, Jira, Docker, Agile, Git, CRISP-DM, Linux   
•Domains – Government, Healthcare, Pharmaceutical, Food, Genomics, Finance

Work Experience 

**Manager, Data Analytics (Permanent, Dublin/Remote)** Ernst & Young, Dublin/Remote, Ireland

**Nov 2020 – Present**

•Working on government projects related to ongoing Covid pandemic response, advising on disease trajectory,

restrictions impact and projected demand for hospitals and testing

•Develop models to project hospital demand and testing demand, facilitating operational and resource planning

•Strive for process clean-up, improvement, and automation by implementing best data practices and strategies

•Lead data scientist on all projects, managing a team of up to six junior data scientists and analysts, and delivering

stories backed up by data and analytics

•Interact with and present to senior stakeholders (EY Partners, and clients such as head of government bodies)

•Mentor and coach junior and senior team members in machine learning solution design and execution

•Founder of data science community within EY to organise live coding sessions on new technologies and tools

**Data Science Course Instructor (Contract, Remote)** Coursera Inc., Dublin, Ireland

**May 2020 – Nov 2020**

•Designing, creating and recording 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>

•Delivering projects with code, explanations, and assessment to thousands of learners worldwide

•Inspiring 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

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

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

•Developed a novel, cutting-edge Quality Control (QC) monitoring and analytical platform for controlling and

analysing biopharmaceutical 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 (supervised & unsupervised) and time

series (forecasting) models, and hyperparameter tuning, using R and Spark (translatable to Python/Java)

•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

**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

•Utilised these models to test the effectiveness of different courses of action (ex. different sanitisation methods)

•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) - [bit.ly/300jX0p](https://bit.ly/300jX0p)

**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** King’s College London, London, UK

**May 2012 – Sep 2012**

•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   
•Analysed and visualised 850 protein sequences belonging to snake toxins   
•Developed and implemented a classifier to classify snake toxins proteins and subsequently converted it to a webserver which was later published as TFTX server [(http://sblab.sastra.edu/submittf.html)](http://sblab.sastra.edu/submittf.html)   
•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   
**B. Tech 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)](http://www.drnikunj.com/)   
Mountain climber (Kilimanjaro and Toubkal), chef, footballer, cyclist, globetrotter