

Dr. Arunakiry Natarajan, M.D.S, M.Sc. (Medical Informatics)



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arunakiry

About me:

I hold a Master's in Medical Informatics from Technische Hochschule Deggendorf in Germany and a proud recipient of the Deutschlandstipendium for the year 2017 and best master thesis award for 2018.

Additionally, I hold a bachelor's and Master's in Dentistry with specialization in Oral Medicine and Radiology from India. I was in clinical dental practice for more than 15 years and was also an academician in a dental school during which I mentored dental students on various dental topics.

Following my career in academics and in clinical dentistry, I moved into healthcare data science. I also hold multiple certifications in the field of Data Science, including certifications from IBM, and underwent rigorous quantitative training, and essential statistical and computing skills needed to manage and analyse health science data, to address important questions in public health and biomedical sciences. I am following this career with an immense belief that apt use of health data, analytics, automation, and responsible AI can spark a digital metamorphosis in health systems across the global healthcare ecosystem.

I have worked with global digital health projects and provide freelance support for the development of research publications and tools in Artificial Intelligence in the healthcare domain. Currently, I am working on the development of standardised terminologies (SNOMED and SNODENT) and interoperability (FHIR) and architectural (openEHR) standards in digital tools in dentistry.

Institution	Degree(s)	Country
Deggendorf Institute of Technology	Master's in Medical Informatics	Germany
Rajah Muthaiah Dental College and Hospital	Master's in Dental Surgery	India
Mahatma Gandhi Post Graduate Institute	Bachelor's in Dental Surgery	India

Project countries

Germany, India, Albania, South Africa, Bangladesh, Kyrgyzstan, Malawi, Nepal, Cambodia, Ethiopia, Togo

Professional Experience

May 2021 – Current **Senior Medical Informatics Expert**
medondo AG

Germany

- Software Product development
- Interoperability and standardisation with standards including SNOMED, FHIR and openEHR
- Market and product analysis
- Systems design and testing
- Evaluate and promote innovations in Dental and Health informatics
- Contribute to the implementation of inter-institutional and cross-organisational

Nov 2018 – Apr **Project Manager and Digital Health Data Specialist**
management4health GmbH

Germany

- Digital health and data expert for projects in Kyrgyzstan, Bangladesh and Albania.
- E-health specialist for projects in Indonesia and Nepal.
- Product development: e-learning platform and digital construction monitoring tool Business development by identifying upcoming projects, expert and team building, and scripting technical proposals for various international donors (WB, KfW, GIZ, ADB, SDC etc.).
- Project management: Develop project timelines, develop Responsibility Assignment Matrix, scripting technical and financial proposals upcoming projects for IT components of various projects.
- Innovation and learning: Analyze, gather requirements, develop specifications, identify new digital tools, implement.
- End-to-end management of the health systems data lineage, data mining and processing of data and with BI tools including PowerBI, Tableau and MicroStrategy.
- Part of COVID response team of experts to provide digital and business support and data management services (including research on the recent guidelines and development of a ready to reckon knowledge base).

Oct 2017 – Sep 2018 **Intern and Master thesis Researcher**
ID Information & Dokumentation im Gesundheitswesen GmbH
& Co.

Germany

- Researcher for the CPOE platform (e-prescription platform) (Received the „Best thesis award“ for this research)
- Assessment of the product's user interface with respect to:
 - Workflow improvement of User Interface (UI) by reducing user fatigue through simplification and reduction of mouse clicks and developed UI changes to fasten prescription generation by users.
 - Identified financial and quality related KPIs.
- Development of a drug-drug interaction database for use in the decision engine.

Feb 2013 – Mar 2015	Senior Lecturer/ Assistant professor Adhiparasakthi Dental College and Hospital	India
<ul style="list-style-type: none"> • Lecturer and Research Mentor for undergraduate students in dental care. • Lead the department team during the ISO certification process. • Streamlined the logistics of patient inflow and referral and this improved patient inflow and patient experience. • Implemented ERP solution in the department and trained the department staff for its effective use and workflow improvement. • Developed and implemented a Cancer Registry System that improved follow up and care quality. 		

Nov 1999 – Oct 2016	General Dental Surgeon, Oral Medicine and Radiology Specialist Chitralayam Dental Clinic	India
<ul style="list-style-type: none"> • Clinical lead and managed a team of dentists, specialists and assistants. • Providing dental care as oro-facial pain specialist and radiology imaging consultant. • Identify and implement a clinical system (Electronic Medical Record) for patient care • Support in the development a SMS based appointment system for sending reminders to prevent loss of follow ups. • Training and capacity building for staff to use the EHR systems. • Development of data quality metrics and policies to ensure compliance with standards. 		

Research Activities

Publications:

- Dr. N. Arunakiry Natarajan, Dr. Ravi David Austin, Dr.N. Thilagavathy, Dr. P. Vijayachandar, Pattern of antibiotic prescription by General dentists – A Questionnaire based study. INDIAN JOURNAL OF APPLIED RESEARCH. 2014
- Sreeja C, Vezhavendan N, Shabana F, Vijayalakshmi D, Devi M, Arunakiry N, Recurrent peripheral odontogenic fibroma associated with basal cell budding. J Pharm Bioall Sc. 2014
- Dr.N.Arunakiry, Dr. Thilagavathy, The Dental Patient With Diabetes. Asian Academic Research Journal of Multi-Disciplinary. 2013
- Dr.N. Arunakiry, Digital Intra-oral Radiography For The General Dentist. JIDAT. 2012
- Dr.N. Arunakiry, Amelogenesis Imperfecta – Report of Two Siblings Within a Family. JIDAT. 2011

Publications in pipeline:

- Federated machine learning in healthcare
- Assessment of digital passports for COVID-19 vaccinations
- Country analysis of COVID-19 vaccination

Professional Certifications (select few)

Project Management Principles & Practices Specialization	University of California, Irvine	May 2017- Dec 2017
International Leadership and Organizational Behavior	Universita Commerciale Luigi	Feb 2018
Health Informatics on FHIR	Georgia Institute of Technology	Nov 2016
Mastering Data Analysis in Excel	Duke University	Dec 2017
Data Science Foundation	IBM	May 2019
Data Visualization and Communication with Tableau	Duke University	Oct 2018
HealthCare Marketplace	University of Minnesota	May 2018
Managing Big Data with MySQL	Duke University	July 2018
Problem solving with Excel	PWC	July 2018
Data-driven decision making	PWC	June 2018
Business metrics for data-driven companies	Duke University	June 2018
Clinical Research Training	National Institutes of Health (NIH)	July 2016

Additional Information

Languages: English (Professional), German (A1), French (Intermediate)

Workshop provider (Decision systems, healthcare AI), Clinical Archetype Reviewer (open EHR)

Interests: Digital and data standards in healthcare, AI use in dentistry, CDSS