

# Rupendra Nath Mitra

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## SKILLS

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- **Languages:** Java, Python      **Domain Knowledge:** Networking, System design, 5G networks(3GPP), Linux
- **Tools:** Excel, Tableau      **Data Science:** Visualization, Deep Learning, Adversarial Machine Learning

## EDUCATION

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- **The University of Edinburgh** Edinburgh, UK  
*Ph.D. in Computer Science* 2019 – Present
- **The Ohio State University** Columbus, USA  
*Master of Science in Computer Science & Engineering* 2016 – 2018
- **University of Cincinnati** Cincinnati, USA  
*Master of Science in Computer Science & Engineering* 2013 – 2015
- **West Bengal University of Technology** Kolkata, India  
*Bachelor of Technology in Electronics & Communication Engineering* 2005 – 2009

## EXPERIENCE

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- **The Ohio State University** Columbus, OH, USA  
*Graduate Research Assistant and Teaching Instructor* Aug 2016 - Dec 2018
  - **Full Instructor:** Taught CS1223 and CS2123. Full teaching responsibilities include lecturing, conducting lab, grading Exams, HW and projects for a class of 40 under-grad and grad students
  - **Research:** Developed PODNETS, a multihop wireless networking schemes for android devices to provide off-grid community messaging and SOS services
- **Ericsson** Dallas, TX, USA  
*Next Generation RAN Intern* Feb 2015 - May 2015
  - **5G Research:** 5G initiatives, Engagement practice, Radio portfolio management activities, Mobile broadband
- **University of Cincinnati** Cincinnati, OH, USA  
*Graduate Research Assistant* Aug 2013 - July 2014
  - **Research:** Developed SCARP, a wearable sensor systems for gait monitoring. Investigated LTE traffic channel capacity limit for energy-efficient crowd-sourced IoT data transmission
- **Nokia Siemens Networks** Kolkata, India  
*RF Planning Engineer* May 2010 - Aug 2013
  - **Key Contributions:** Planned capacity networks that catered 12% increased traffics for the Vodafone account within a single quarter. Was the key resource to develop data visualization and mining for network and business analysis
  - **Network Planning & Optimization:** coverage & capacity planning, neighbor handover and frequency planning, network dimensioning, KPI provisioning, Dashboard validation, customer complain solution, budgeting for capacity enhancement, customer engagement practice.

## SELECT PROJECTS

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- **(2020) Adv. ML for Secure Autonomous Vehicle:** Designing threat models for multi-modal sensor perception systems to explore security vulnerabilities in modern autonomous vehicles
- **(2020) RAN Slicing Security:** Investigate the RAN slicing security by designing threat model to reveal the security vulnerability of RAN slicing under shared IT infrastructure.
- **(2014) IoT:** Smart shoe design for the patients of Parkinsons disease to freeze detection and gait monitoring by automated data analysis and data visualization.