PRASENJIT KARMAKAR

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EXPERIENCE

Doctoral Researcher
Indian Institute of Technology Kharagpur

📅 Apr 2022 – Ongoing   📍 Kharagpur, India

- Currently working on Pervasive and Ubiquitous Computing.

Systems Engineer
Tata Consultancy Services

📅 Nov 2020 – Mar 2022   📍 Bangalore, India

- Worked as a Full-stack developer and primarily used Lit-Element, React to build Web components and Flask for REST endpoints.

Research Intern
National Institute of Technology Durgapur

📅 Sep 2019 – Sep 2020   📍 Durgapur, India

- Worked in projects related to the application of AI in environment monitoring, smart-city transport, resource allocation in wireless networks.

PUBLICATIONS

📄 Journal Articles

- Choudhury, B., Karmakar, P., Shah, V. K., & Reed, J. H. (2022). Learning based age of information minimization in uav-relayed iot networks. *arXiv preprint arXiv:2203.04227*.

- Karmakar, P., Shah, V. K., Roy, S., Hazra, K., Saha, S., & Nandi, S. (2022). Reliable backhauling in aerial communication networks against uav failures: A deep reinforcement learning approach. *IEEE Transactions on Network and Service Management*, *19*(3), 2798–2811.

- Mandal, R., Karmakar, P., Chatterjee, S., Spandan, D. D., Pradhan, S., Saha, S., Chakraborty, S., & Nandi, S. (2022). Exploiting multimodal contextual sensing for city-bus's stay location characterization: Towards sub-60 seconds accurate arrival time prediction. *ACM Transactions on Internet of Things*.

- Pramanik, P., Karmakar, P., Sharma, P. K., Chatterjee, S., Roy, A., Mandal, S., Nandi, S., Chakraborty, S., Saha, M., & Saha, S. (2022). Aquamoho: Localized low-cost outdoor air quality sensing over a thermo-hygrometer. *ACM Transactions on Sensor Networks*.

👥 Conference Proceedings

- Sen, A., Mandal, A., Karmakar, P., Das, A., & Chakraborty, S. (2023). Mmdrive: Mmwave sensing for live monitoring and On-Device inference of dangerous driving. In *IEEE PerCom 2023, arXiv preprint arXiv:2301.08188*, Atlanta, USA.

- Sharma, P. K., Karmakar, P., Chatterjee, S., Roy, A., Mandal, S., Chakraborty, S., Nandi, S., & Saha, S. (2021). Can i go for a roof walk today? know your housing's air quality from a thermohygrometer. In *ACM BuildSys 2021* (Pages 91–100).

- Mandal, R., Karmakar, P., Roy, A., Saha, A., Chatterjee, S., Chakraborty, S., Saha, S., & Nandi, S. (2020). Ad-hocbuspoi: Context analysis of ad-hoc stay-locations from intra-city bus mobility and smartphone crowdsensing. In *ACM SIGSPATIAL 2020 Posters* (Pages 457–460).

LIFE PHILOSOPHY

"If you don't have any shadows, you're not standing in the light."

STRENGTHS

Data Analytics   Deep Learning
Reinforcement Learning   Mobile Sensing
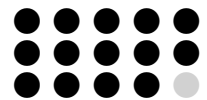Web Components   Microservices
C/C++   Python 3   JavaScript ES6

LANGUAGES

English
Bengali
Hindi

EDUCATION

Ph.D. in Computer Science |8.93
Indian Institute of Technology Kharagpur

📅 Jul 2022 – Ongoing

B.Tech in Computer Science |9.13
Maulana Abul Kalam Azad University of Technology

📅 Jun 2016 – Jul 2020

$10+2^{th}$ in Science |85.4%
West Bengal Council of Higher Secondary Education

📅 Feb 2014 – Mar 2016

Madhyamik (10th) |88%
West Bengal Board Of Secondary Education

📅 Jan 2013 – Feb 2014

REFEREES

Dr. Sandip Chakraborty
@ IIT Kharagpur, India
✉ sandipc@cse.iitkgp.ac.in

Dr. Subrata Nandi
@ NIT Durgapur, India
✉ subrata.nandi@cse.nitdgp.ac.in

Dr. Vaneet Aggarwal
@ Purdue University, United States
✉ vaneet@purdue.edu