

Dear Recruiting Team,

I am applying for the research scientist position (590076) advertised in LinkedIn. I am currently pursuing a machine learning research internship at Canon Information Systems Research, Australia (CISRA) under the supervision of Dr. Nagita Mehrseresht (Principal Research Engineer) and Dr. Jeroen Vendrig (Research Manager, Image and Video Understanding Division). Additionally I am on a program leave from the final phase of my PhD in Computer Science in the University of New South Wales, Canberra under the supervision of Professor Tapabrata Ray and Dr. Hemant Kumar Singh. I have successfully carried out several projects in the area of optimization, machine learning and data analysis using the state of art programming languages such as python and MATLAB. Please take note that in the event I am successful to get the position, I will be able to start from April, 2018 at the earliest.

During my internship period, I am involved in a project of action understanding from videos which involves handling large amount of video data and devise machine learning techniques to solve the problem. I am using LSTMs, CNNs within TensorFlow environment in Python to tackle this problem. Additionally I am also looking into learning to learn the optimizer used in machine learning problem to improve the learning process.

During my PhD tenure, I have developed several nature-inspired algorithms to deal with computationally expensive optimization problems occurred in engineering domains such as flapping wing design, ship design, wind farm layout design etc. I have extensively used data driven surrogate assisted and multi-fidelity techniques to learn the design landscape quickly with 30% reduced computational burden on practical problems.

Additionally, I have attracted several international and domestic funding such as I was a partner investigator in **Australia-Germany Joint Cooperation Grant** (Singh, Bhattacharjee, Ray, Mostaghim, Moritz) on "Identification of solutions of interest to aid evolutionary multi-objective optimization and decision- making" awarded by **Universities Australia** and **DAAD** for 2017-2018 (23.5K AUD) and I was one out of the three recipients (worldwide) of 2016 **IEEE CIS Graduate Student Research Grant** (2.6K USD) which allowed me to visit Professor Qingfu Zhang's group in the City University of Hong Kong for two weeks. I have served as a member of the Program Committee of a number of premier international and local conferences in the field of artificial intelligence and as a regular reviewer in top journals such as IEEE Transactions on Evolutionary Computation, IEEE Transactions on Cybernetics and many more. I have authored/co-authored 1 book chapter, 7 peer reviewed journal papers, 5 peer reviewed lecture notes and 3 peer reviewed conference papers in the last three years.

I have been analysing data in the context of engineering design since my university education. Additionally, I am always eager to learn new skills and improve my existing skillset by applying it to efficiently formulate and solve practical problems. I feel that, there is so much to investigate and achieve in data-driven business problems using machine learning and optimization techniques to discover underlying principles.

Finally, I want to thank you for your time and consideration and I look forward to hearing from you.

Thanks and best regards

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