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Arthur B. (Barney) Maccabe, Chair
Faculty Search Committee
1 The University of New Mexico
Department of Computer Science MSC 01 1130
Albuquerque, NM 87131-1386

Dear Sir:

In response to your faculty-recruiting ad published by the ACM, I would like to express my full interest in being considered for one of your assistant professor positions (JR# 5553 A/B). I am currently a postdoctoral fellow in the Artificial Intelligence Group at the University of Toronto. During my years of graduate and postdoctoral work I believe I have gained hands-on understanding of teaching, conducting research, and obtaining funding in academia.

I considered applying to your Department because I am confident that I can bring my research and teaching experience and ideas in areas that fit your Departmental objectives. I am inclined towards multidisciplinary work, and have carried out substantial research work in statistical machine learning and AI, computer vision (including graphics and HCI), and data analysis in general; and have also gained valuable experience in data mining, including spatial data visualization and bioinformatics. I am also aware of related work performed by your faculty and chose to apply in part because my understanding of the field could be both relevant and complementary in developing statistical learning algorithms for AI, data analysis/visualization, HCI, numerical methods for inference, cognitive science, and bioinformatics, useful in several of your research projects. As for teaching, I am prepared to teach classes such as machine learning, vision/graphics, statistics and visualization, probabilistic inference, information theory, currently in high-demand, as well as create new classes or specialized seminars in my areas of expertise. My experience in this range of areas should contribute with the diversity of teaching and research.

As part of my future plans, I aim to deepen and expand my own line of research, helping to create new academic resources and infrastructure. I plan to approach key fundamental problems in statistical machine learning including new forms of approximate probabilistic inference, numerical methods, semi and un-supervised learning, and new connections between machine learning and other fields, including but not restricted to information theory, differential geometry, convex analysis, algorithm theory, and cognitive science. This also involves discovering new applications in areas such as spatial data visualization, graphics, vision, data mining/retrieval, and bioinformatics. Some of these fields have attracted external interest for collaboration with other institutions and promise to draw substantial industrial and governmental support. I am constantly investigating new ideas for ground-breaking algorithms and concepts, favoring multidisciplinary research, and am looking forward to working in an exciting and progressive department.

I thank you for your consideration of my application.

Yours truly,

Rómer Rosales

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Artificial Intelligence Group
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REFERENCES FOR RÓMER E. ROSALES

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