Motivation lettre

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Re: Post-doc Scholarship

Dear Madam or Sir,

I have obtained my PHD degree at University of technology of Troyes (UTT) in France in December 2009. I would like to apply for a postdoc research position as the beginning of my research career in your group.

I graduated from Xi'an Jiaotong University which is the top ten university in China and received my bachelor and master degree in Management Science and Industrial Engineering. In 2006, I received a Chinese government scholarship for my PHD study in France.

In the period of PHD study, my research domain is Combinatorial Optimization. The research focuses on algorithm development for set partitioning problems. The subject of my thesis is "Methods to solve set partitioning problems and application in packing problem and operating room scheduling problem". We developed heuristic algorithms to solve a series of set partitioning problems based on a general schema stemming from dynamic programming idea. In this schema, a subproblem consisting of constructing a pattern with the least cost by affecting a resource to a subset of activities must be solved. We applied theses algorithms on operating room scheduling problem, two-dimensional bin packing problem and vehicle routing problem. And now, I work for project CISIT (Campus International sur la sécurité et l'Intermodalité des Transports) in University of Valenciennes (UVHC). We apply the graph theroy to solve stochastic bin packing problem which is proposed in logistic management.

These research experiences give me a well understanding for mathematical application, operation research knowledge, especially modeling, algorithm design, algorithm performance evaluation, simulation, set partitioning model, column generation, dynamic programming, integer linear programming. And during these experiences, I also improve my information techniques, like writing programs with c and solving large scale linear programming problems with cplex. With my research background and the high motivation for research works, I think I am the appropriate person for this work.

I enclose a curriculum vitae and a reference from my supervisor Chengbin CHU. Please contact me if you require any further details. I hope to hear from you in the near future.

Yours faithfully

Ya LIU