**Yu Haoran**, Associate professor, Ph.D. Supervisor

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**Dear Members of the Admission Committee,**

It is my pleasure to recommend **Mr. Jinrui Zhang** for admission to the graduate program at the **University of Alberta**. I taught him in my *Abstract Algebra and Group Theory* course at Jilin University, where he demonstrated excellent logical reasoning, a strong capacity for abstract thinking, and a genuine enthusiasm for theoretical mathematics.

Jinrui has a strong desire to understand the various concepts in algebra in a practical and intuitive way. He may not grasp new ideas as quickly as some of his peers, but he always shows a persistent urge to learn and to understand the structure of groups, homomorphisms, and representation theory. He also shows great interest in how symmetry principles can be applied to modern data analysis and machine learning models. Rather than being a proof-driven student, he tends to approach mathematics from a more constructive and application-oriented perspective.

What impressed me most was his ability to internalize abstract definitions and find ways to apply them in practice. It is rare for a student interested in applied mathematics to show such enthusiasm for pure theory and to constantly explore how to bridge the two fields. This balance of theoretical understanding and practical motivation is one of his most valuable traits.

In addition, Jinrui is a cooperative and curious student who frequently discussed ideas with his classmates after lectures. His enthusiasm and clarity in communication made him a positive influence on the class environment.

Based on his strong mathematical foundation, intellectual maturity, and interest in connecting pure mathematics with modern applications, I believe Jinrui will excel in graduate-level study and research. I strongly recommend **Mr. Jinrui Zhang** for admission to the graduate program at the University of Alberta.

**Sincerely,**  
**Yu Haoran**  
Associate Professor, Ph.D. Supervisor  
School of Mathematics, Jilin University