Computational Synthesis and Creative Systems

Noor Shaker · Julian Togelius · Mark J. Nelson **Procedural Content Generation in Games**

This book presents the most up-to-date coverage of procedural content generation (PCG) for games, specifically the procedural generation of levels, landscapes, items, rules, quests, or other types of content. Each chapter explains an algorithm type or domain, including fractal methods, grammar-based methods, search-based and evolutionary methods, constraint-based methods, and narrative, terrain, and dungeon generation.

The authors are active academic researchers and game developers, and the book is appropriate for undergraduate and graduate students of courses on games and creativity; game developers who want to learn new methods for content generation; and researchers in related areas of artificial intelligence and computational intelligence.