GPU Gems has won a prestigious Front Line Award from Game Developer Magazine. The Front Line Awards recognize products that enable faster and more efficient game development, advancing the state of the art.

FULL COLOR THROUGHOUT!

“This collection of articles is particularly impressive for its depth and breadth. The book includes product-oriented case studies, previously unpublished state-of-the-art research, comprehensive tutorials, and extensive code samples and demos throughout.”
—Eric Haines, Author of Real-Time Rendering

“GPU Gems is a cool toolbox of advanced graphics techniques. Novice programmers and graphics gurus alike will find the Gems practical, intriguing and useful.”
—Tim Sweeney, Lead Programmer of Unreal at Epic Games

**GPU Gems** is a compilation of articles covering practical real-time graphics techniques arising from the research and practice of cutting-edge developers. It focuses on the programmable graphics pipeline available in today’s graphics processing units (GPUs) and highlights quick and dirty tricks used by leading developers, as well as fundamental, performance-conscious techniques for creating advanced visual effects. The contributors and editors, collectively, bring countless years of experience to enlighten and propel the reader into the fascinating world of programmable real-time graphics.

Major topics covered include:

- Natural effects
- Lighting and shadows
- Materials
- Image processing
- Performance and practicalities
- Beyond triangles

Contributors are from the following universities and corporations:

- Alias Systems
- Brown University
- Croteam
- Cyan Worlds
- Hochschule Bremen
- Industrial Light & Magic
- iXBT.com
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Contributors include top experts from both industry and academia. The first comprehensive collection of practical techniques, tips, and tricks for programming real-time computer graphics. Removes the mystery behind complex effects and reveals the full potential of programmable GPUs (graphics processing units). Covers some of the coolest and most difficult effects, such as simulating fire, water, and waving blades of grass. Contains advice from experts with major graphics companies such as Softimage, AliasWavefront, Industrial Light and Magic, and Sony.

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Matt Pharr

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