CSCE 4250/5265 Topics in Game Development

Instructor: Ian Parberry
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Semester: Spring 2020
Time: TR 4:00-5:20pm
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Course Description:

The class will read and discuss articles from the academic and technical literature on game development and related material from relevant computer science areas.

Draft Schedule

Week 1: Introduction, Video Game Science, Game Dev Research
Week 2: Research Methods
Week 3: Project pitches
Week 4: Perlin Noise and its Applications
Week 5: Procedural Content Generation
Week 6: Procedural Terrain Generation
Week 7: Puzzles: Sokoban, The 15-Puzzle
Week 8: Procedural Quest Generation, Emergent Economies in RPGs
Week 9: Burning Things Procedurally
Week 10: Lindenmayer Systems, Wang Tiling
Week 11: Audio Games, Procedural Ornamentation
Week 12: TBA
Week 13: TBA
Week 14: Final project presentations
Week 15: Final project presentations

Learning Outcomes

By the end of the course, you will have:

1. Ability to perform a literature search for academic game development articles.
2. Ability to formulate a game development related project using academic articles.
3. Ability to devise metrics for measuring the viability of a game development related project.
4. Experience with writing code for and evaluating those metrics.
5. Experience with interpreting and pitching the results to a game development team.

Course Requirements

Attendance: Optional except for student pitches and presentations which are mandatory for all.
Exams: None
Grade: The grade for this class will be on a project and a class presentation.

Disability Accommodation

The University of North Texas complies with Section 504 of the 1973 Rehabilitation Act and with the Americans with Disabilities Act of 1990. The University of North Texas provides academic adjustments and auxiliary aids to individuals with disabilities, as defined under the law. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring accommodation, please see the instructor and/or contact the Office of Disability Accommodation at 940-565-4323 during the first week of class.