Fall 2004

CS 766: Evolutionary Computation

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This course explores evolutionary computation from a historical, theoretical, and application viewpoint. An overview of the most common evolutionary search techniques are presented including genetic algorithms, evolutionary programming, evolutionary strategies, and genetic programming. The fundamental issues driving the choice of problem representation and specific genetic operators are discussed. Various applications of evolutionary computation to problems in control, optimization, and pattern recognition are examined.

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Workload: 2-3 Homework Exercises 25%
1 Midterm Examination 25%
1 Final Examination 25%
1 Course Project 25%

Grading: 90-100 A, 80-89 B, 70-79 C, 60-69 D, < 60 F

Course Topics

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