Course Project - Tetris Game

Software Engineering | Fall 2021

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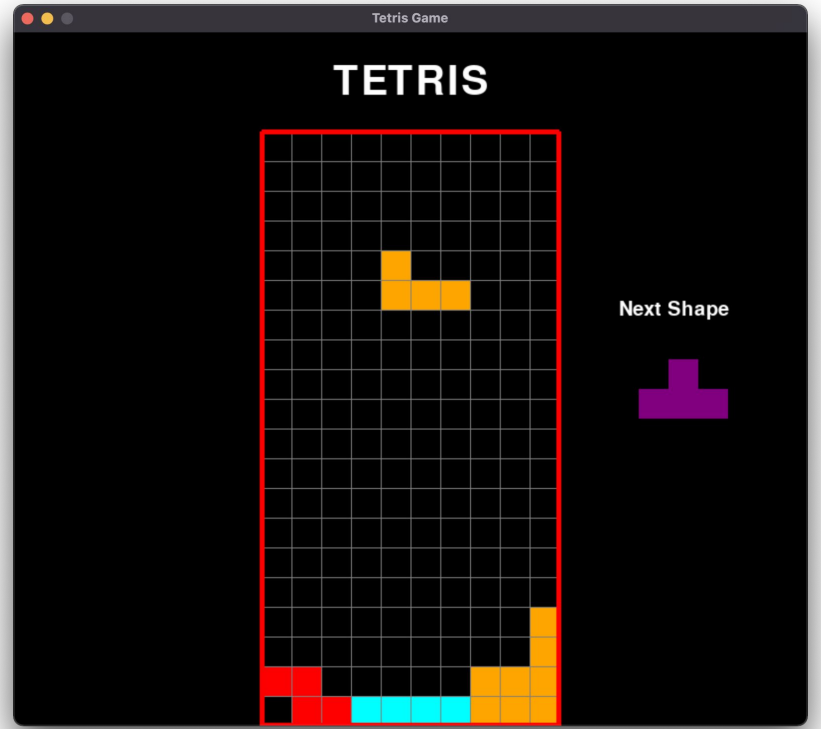
Contents

Introduction

- Tetris Game
- Play Rules
- Key Features
  - Opponent (Multi-layer Perceptron / Deterministic Predictor)
  - Customization
  - Cross-platform and Device-agnostic
  - No Hard-coded Configuration



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Framework

- SQLite
- PyGame
- PyTorch
- PyUnit

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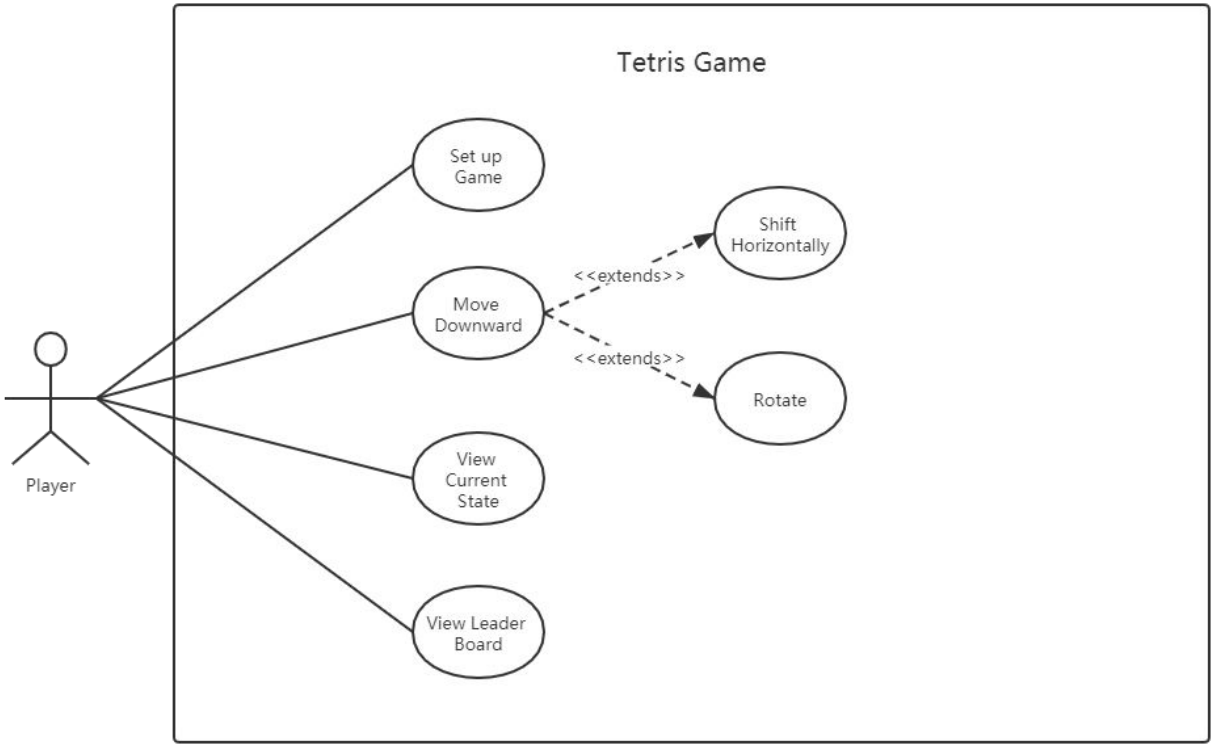
Use Cases



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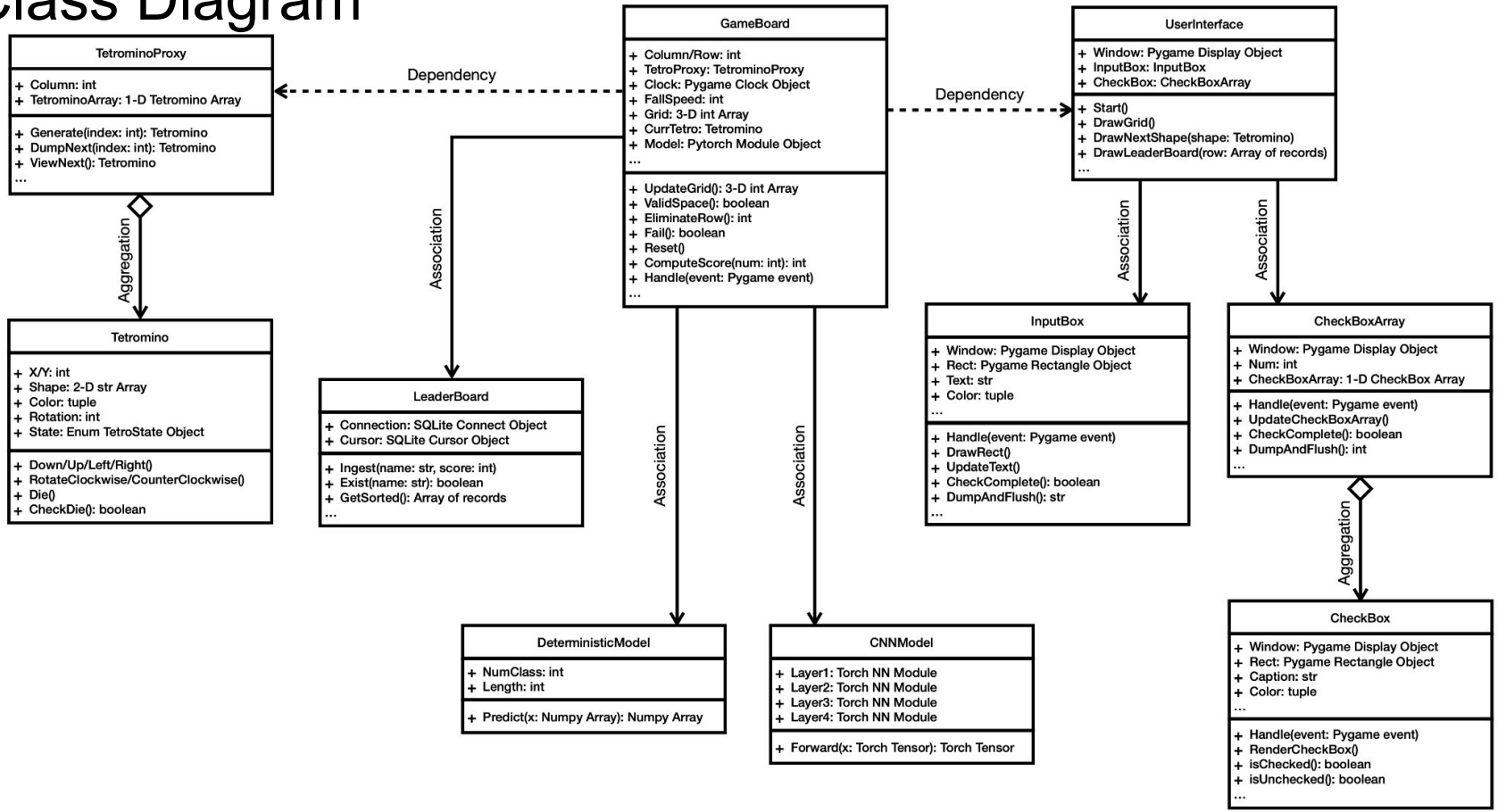
Class Diagram



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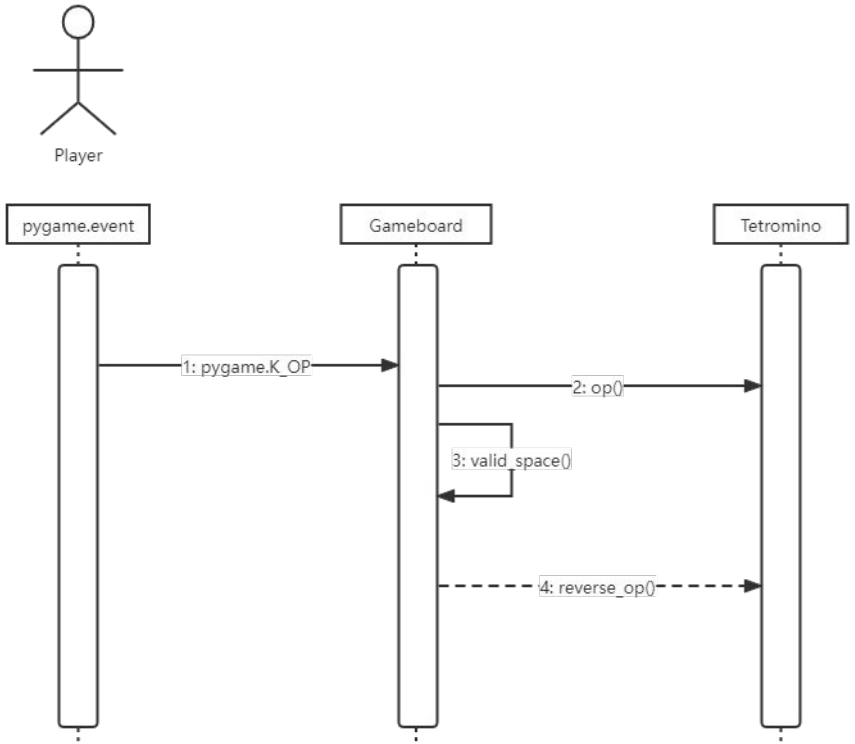
Sequence Diagram: operations()



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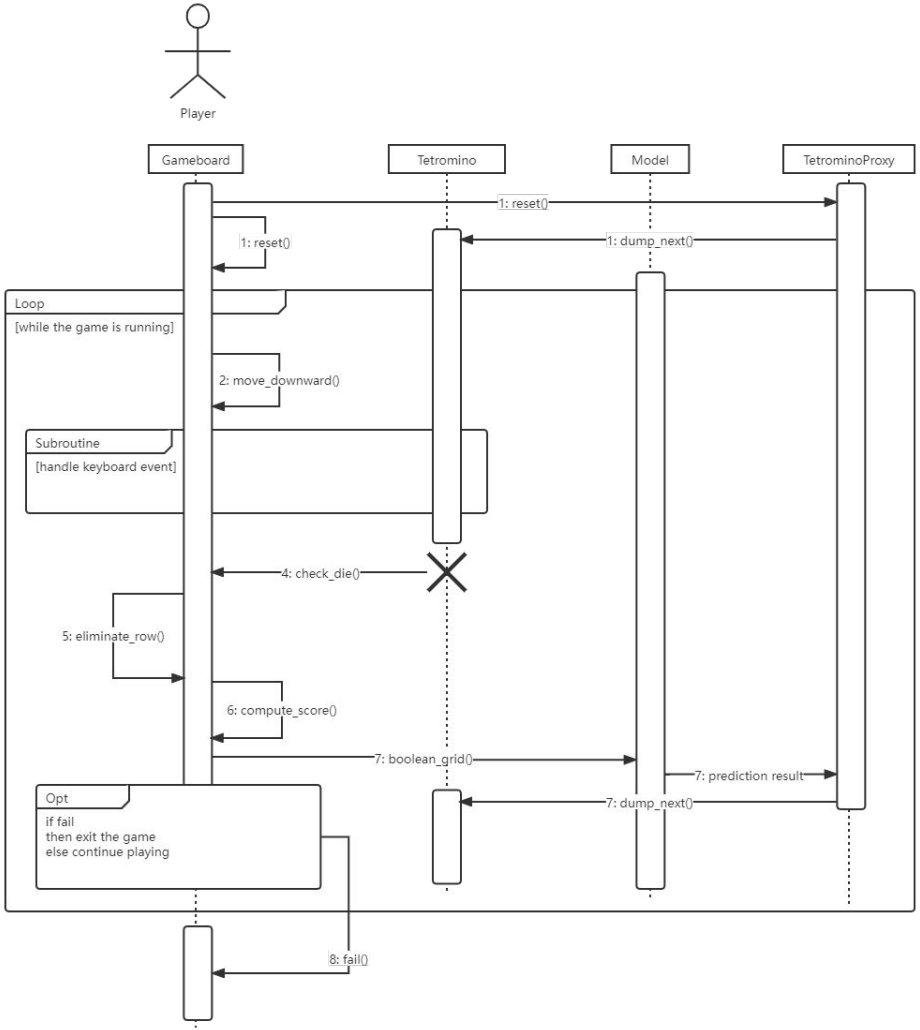
Sequence Diagram: play()



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Runtime

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Test Cases

- TestDisplay: PyGame’s GUI display features
- TestModel: Neural Network Models
- TestTetromino: Tetromino & TetrominoProxy
- TestGameBoard: GameBoard, integration test

(Powered by PyUnit)

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Progress Report

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Reflections & Lesson Learned

- Bug Resolving
- Code Refactoring
- Limitations of Framework

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Thank You