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RUNTIME VERIFICATION FROM THEORY TO PRACTICE AND BACK

INTRODUCTION

Runtime Verification

- ⦿ Error free way of
 - Expressing properties
 - Implementing them

(Overheads constraint issues are outside the scope of this course)

Manual
Monitoring

Separation of
Concerns

Aspect-Oriented
Programming

Higher Levels
of Abstraction

Guarded
Command

Automata

Regular
Expressions

- ⦿ Separation of concerns enables automatic code generation
- ⦿ Which in turn facilitates higher levels of abstraction