## Computer Science NEA 2025

Nathan Tatkowski March 5, 2024 CONTENTS

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Nathan Tatkowski 1 ANALYSIS

## 1 Analysis

## 1.1 Identification of Problem

Often times during research it is important and very helpful to be able to visualise the events that are being analysed. When working with models in two dimensions, it is easy enough to be able to draw out an accurate diagram, even if it may be tedious. However, 2D models are nowhere near as applicable or useful as considering events in three dimensions, stemming from the fact that the world we live in is three-dimensional. Something that would aid intuition and help in problem-solving would be a way to have events modelled quickly, accurately, and clearly, given a set of initial conditions.

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1.2 Identification of why this problem is solvable by computational methods

- 1.3 Description of the Current System
- 1.4 Stakeholders
- 1.5 Identification of User Needs and Acceptable Limitations
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- 1.8 Data Source(s)
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- 2.5 Identification of Processes and Suitable Algorithms for Data Transformation and Completion of the Solution
- 2.6 Sample of Algorithms
- 2.7 User Interface Design Rationale and Usability Features
- 2.8 Security and Integrity of Data
- 2.9 System Security (Access Control)
- 2.10 Overall Test Strategy
- 3 Implementation
- 3.1 Annotated Listing of the Program(s)
- 3.2 Annotated "Design Views" showing details of application-generated forms, reports, queries, buttons, cross tabulations, etc.
- 3.3 Procedure and Variable List
- 3.4 Testing to inform development Testing at each stage
- 3.5 Re-Testing
- 4 Testing
- 4.1 Test Plan
- 4.2 Test Data