

Dynamic Programming for DNA Sequence Alignment

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1 Introduction

1.1 DNA Sequence Alignment

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1.2 The Role of Dynamic Programming

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1.3 Project Structure Overview

References

- [1] Needleman, Saul B., and Christian D. Wunsch. "A general method applicable to the search for similarities in the amino acid sequence of two proteins." *Journal of molecular biology* 48.3 (1970): 443-453.
- [2] Smith, Temple F., and Michael S. Waterman. "Identification of common molecular sub-sequences." *Journal of molecular biology* 147.1 (1981): 195-197.