Docket #: S04-319

Fast feature selection method and system for maximum entropy modeling

Maximum Entropy (ME) modeling is a general statistical modeling paradigm that may be applied in language modeling and natural language processing to predict linguistic behavior by incorporating various informative features, each encoding some linguistically statistical event, from a corpus of data into a common framework of conditional models.

The present invention is intended to provide a fast method for selecting high quality features for Maximum Entropy (ME) modeling that may be applied in areas of statistical modeling and linear regression, ranging from language understanding and bio-informatics to stock market prediction. In this regard, the fast feature selection method of the present invention may build compact, high-quality, robust models and make feasible many previously impractical tasks.

Applications

- **Statistical modeling and linear regression**
- Language understanding
- Bio-informatics
- Stock market prediction

Advantages

- **Fast methodology**
- Robust

Publications

- Zhou et al. ACL Anthology (2003) "Fast algorithm for feature selection in conditional maximum entropy modeling"

Patents

- Published Application: WO2005008365
- Published Application: 20050021317
- Issued: 7,324,927 (USA)

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