Automatic Construction and Natural-Language Description of Nonparametric Regression Models

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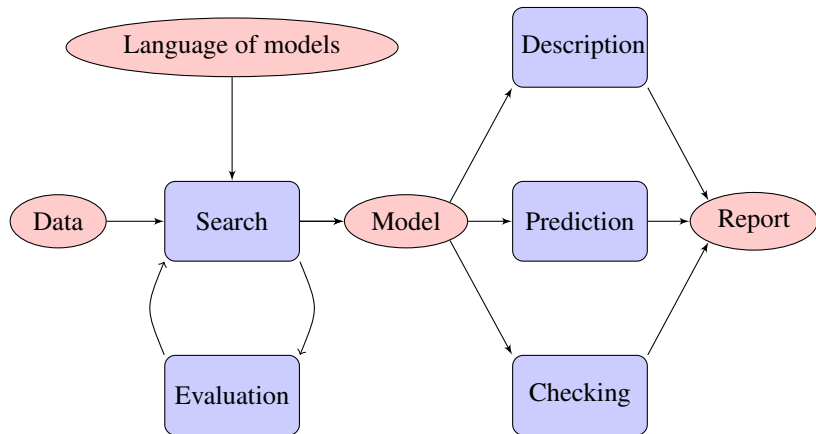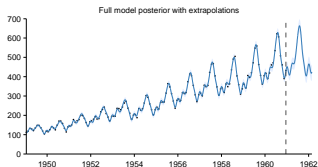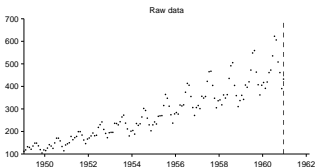
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1: Department of Engineering, University of Cambridge, UK
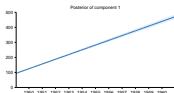2: Massachusetts Institute of Technology, USA

A SYSTEM FOR AUTOMATIC DATA ANALYSIS

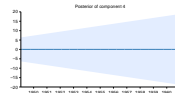Four additive components have been identified in the data

A linearly increasing function

An approximately periodic function with a period of 1.0 years with linearly increasing amplitude

A smooth function

Uncorelated noise with linearly increasing standard deviation

Compositionally constructed statistical models

Compositionally constructed
natural-language descriptions

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