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PROFILE

The undergraduate studies at the Computer Science and Engineering department of Helsinki University of Technology included a wide variety of different topics. First of all, I studied Computer and Information Science as my major. It included the basics on such topics as digital signal and image processing, pattern recognition, neural networks, and machine learning. On the other hand, the first minor subject was Software Techniques, which included the basics in programming languages and their paradigms, compiler technology, knowledge engineering, embedded systems, and software engineering. The second minor subject of interactive digital media was taken mainly because of the interest in computer graphics.

The four years spent as a research assistant included study and a software library implementation of dynamic Bayesian networks, useful in time series analysis. This also had the side-effect of teaching me to program fluently with C. It also introduced me the real world problems of software projects, later elaborated at the course on software engineering.

EXPERIENCE

Research scientist, Helsinki University of Technology, Dept. of Information and Computer Science, Espoo, Finland since 02/2007

Study and design of probabilistic diagnostic and data mining methods.

Research assistant, Helsinki University of Technology, Lab. of Computer and Information Science, Espoo, Finland 06/2003 - 01/2007

Study and software implementations on such techniques as Hidden Markov Models and their generalization: Dynamic Bayesian Networks.

HIGHER EDUCATION

Helsinki University of Technology, Espoo, Finland Master of Science in Technology, 2007

Forssan Yhteislyseo, Forssa, Finland Eligibility for studies at university level, 2000.

RESEARCH INTERESTS

Data mining, pattern recognition, machine learning, probabilistic graphical models in the domain of time series data, digital signal processing, embedded and distributed systems.

PUBLICATIONS

Master's Thesis, Helsinki University of Technology Jan. 2007

J. Toivola, Modular specification of dynamic Bayesian networks for time series analysis.

The 1st Workshop on Data Mining of Uncertain Data (DUNE 2007) Oct. 2007

R. Gwadera, J. Toivola, J. Hollmén: Segmenting multi-attribute sequences using DBNs

MILITARY SERVICE

Mandatory Finnish military service 07/2001 - 07/2002

Rank of sergeant: specialized in electronics maintenance.