Ayse Parlak

Graduate Research Intern - Siemens Corporation

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WORK EXPERIENCE

Graduate Research Intern

Siemens Corporation - Princeton, NJ - June 2014 to Present

Currently developing design optimization models for concrete wind turbine towers with non-smooth objective functions and nonlinear constraints. Using C++, NX, NX Open, NASTRAN and MATLAB. Project Sponsored by US Department of Energy.

• Created SFTP based interface in C# for automated transfer of gas turbine maintenance data for Siemens Energy.

• Developed discrete event stochastic simulation models in MATLAB and C++ for a service environment of a Siemens Business Unit.

Research Assistant

Stochastic Modeling - Pittsburgh, PA - 2012 to 2014

Developed network optimization models for deployment of data servers over a network of facilities for minimization of probability of experiencing delay in retrieving medical data. Project sponsored by US Air Force Research Laboratory and Air Force Institute of Technology.

• Worked on cost optimization of spare part inventories with intermittent demand.

Student Research Participation Program Intern

US Air Force Research Laboratory- Air Force Institute - Pittsburgh, PA - June 2012 to August 2012

Developed non-linear, stochastic network optimization models for military healthcare data network (CPLEX, AMPL, Java and MATLAB based).

Research Assistant, Center

University of Virginia - Charlottesville, VA - 2009 to 2011

Developed scenario analysis tools and multi-objective optimization models for emergency decision making. Project sponsored by US Department of Homeland Security and Federal Emergency Management Agency.

SKILLS

• Ability to use C\C++, C#, Python, MATLAB, VBA, Arena, R, Minitab, AMPL, CPLEX, Weka, NX, NX Open, Office Applications.

• Completed M.Sc. and Ph.D. level coursework in machine learning (from Carnegie Mellon University) linear and non-linear optimization, network optimization, integer programming, combinatorial optimization, probability and stochastic processes, statistics and multivariate analysis, discrete event simulation, risk analysis.

• A list of publications in scientific journals, conference presentations and technical papers is available upon request.

EDUCATION

M.Sc. in Industrial Engineering

University of Pittsburgh - Pittsburgh, PA

April 2000 to 2014

M.Sc. in Systems and Information Engineering

University of Pittsburgh. University of Virginia - Charlottesville, VA
April 2000 to 2011

B.A. in Management Science

Bogazici University - İstanbul
April 2000 to 2009

MSc in Operations Research

Risk Analysis and Institute