Farnaz Farzadnia

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Research Interests

Algorithms, graphs, network, combinatorial optimization algorithms, supply chain management and logistics, metaheuristics algorithms, machine learning

Academic Experience

- **Postdoctoral | March 2024 – Present | Copenhagen Business School | Copenhagen, Denmark**
    - o Working on the SINERGI project (project code: 482.22.04), funded by the Danish Innovation Fund (Danmarks Innovationsfond) under the international projects instrument, 2093-00003B--Urban Europe--Sino--EU--4—SINERGI
- **PhD | Sep 2019- Aug 2022 | Aarhus University | Aarhus, Denmark**
    - o Ph.D., Cluster for Operations research, analytics, and logistics (CORAL)
    - o Dissertation title: Multimodal vehicle routing problem
    - o Main Supervisor: Jens Lysgaard

Publications

- F .**Farzadnia**, T. Bektas, J. Lysgaard, The cumulative school bus routing problem: Polynomial-size formulations, Networks, 2023, DOI: 10.1002/net.22179
- F .**Farzadnia**, J. Lysgaard, Solving the service-oriented single-route school bus routing problem: Exact and heuristic solutions, EURO Journal on Transportation and Logistics, 2021
- A. Alibabaei, **F. Farzadnia**, Risk Assessment in ERP Implementation, Conference for Information Systems, Paris, France, 2018.
- **F. Farzadnia**, A. Alibabaei, Classify Risk Factors in Implementation of ERP, 12th International Industrial Engineering Conference, Tehran, Iran, 2016.

Teaching Experience

- **Lecturer, Mathematical Modelling**
    - ▪ *Content: mathematical optimization course*
    - ▪ *Place: Copenhagen Business School*
    - ▪ *Semester: Fall 2024*
- **Lecturer, Warehouse Management**
    - ▪ *Content:* Quadratic assignment problem, truck scheduling, heuristic algorithm

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- ▪ *Place:* Aarhus University, Denmark
- ▪ *Semester:* Fall 2021
- **Teacher Assistant**, **Supply chain management**
  - ▪ *Content:* linear programming, goal programming, forecasting, inventory management, supply chain management, combinatorial optimization problems, one- two machine scheduling job shop scheduling, quality management (TQM) and six sigma, capacity management, sales and operations planning (S&OP), inventory management, project management
  - ▪ *Place:* Aarhus University, Denmark
  - ▪ *Semester:* Spring 2021, Spring 2022
- **Teacher Assistant**, **Mathematics for Economics**
  - ▪ *Content:* limit, integral, derivatives, matrix and vector algebra, single and multi variate optimization, constrained optimization
  - ▪ *Place:* Aarhus University, Denmark
  - ▪ *Semester:* Fall 2020
- **Lecturer**, **Operations Research**
  - ▪ *Content:* Integer programming modeling, simplex algorithm, network, shortest path, max flow
  - ▪ *Place:* Maziyar University, Iran
  - ▪ *Semester:* Fall 2012

Industry Experience

- **Decision Scientist | Maersk | 2022-2023| Copenhagen- Denmark**
  - o Decision scientist, working on network optimization and cargo flow, C++, python
- **Senior Software Engineer | DOTIN | 2014 – 2019 | Tehran-Iran**
  - o Senior backend developer, C#.Net and SQL server.
- **Software Engineer | Rayan Pardaz Kavosh| 2009 - 2014| Tehran-Iran**
  - o Backend developer C#.Net

Other Experiences

- **Board member of Danish Operations Research Society (DORS) | 2025-Present**

Workshops & Conferences

- EURO 2025, Leeds University, Leeds, UK, 2025
- VeRoLog Conference, Hamburg, Germany, June 13-15, 2022
- NORS, Norwegian Operation Research annual conference, Bergen, Norway, 2021
- The Fourth Workshop on Optimization and its Applications, Tehran, Iran, 2012

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- International Conference on Operation Research and Optimization, IPM, Tehran, Iran, 2011

PhD Courses

- Combinatorial programming
- Stochastic programming
- Deep reinforcement learning
- Heuristics and applications
- Teaching Pedagogy for PhD students
- Research processes in operations research with applications in logistics.

Certificates

- Combinatorial Optimization, NATCOR, 2021
- Business Process Management, 16 hours, Dotin education center, 2018
- Fintech Fest for Startups, won the prize for the best idea, Tehran, Iran, 2017
- Information Technology Infrastructure Library (ITIL), 80 hours, Dotin, Iran, 2015
- Introduction to ISO 9001:2008, 9 hours, Dotin education center, Tehran, Iran, 2015
- C++, elementary and advanced, 100 hours, Tehran, 2009- 2010
- SQL Server, 40 hours, Tehran, 2012
- English language, diploma, Iran English Institute, Tehran, Iran, 2001-2005