

# Ing. Jurij Ruzheinikau

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CONTACT INFORMATION  
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EMPLOYMENT HISTORY  
**Institute of Information Theory and Automation**  
**Department of Adaptive Systems**  
**Location:** Prague, Czech Republic  
**Length of employment:** July 2024 - Present

Key responsibilities:

- PhD thesis on the topic of *Adaptive dynamic AI focused on humans*.

**CZU Faculty of Economics and Management - Department of Information Engineering**  
**Location:** Prague, Czech Republic  
**Position:** Technical worker  
**Length of employment:** April 2024 - August 2024

Key responsibilities:

- Administrative position in the department's secretariat.

**UniCredit Bank Czech Republic and Slovakia, a.s.**  
**Location:** Prague, Czech Republic  
**Position:** Market risk specialist  
**Length of employment:** September 2022 - May 2024

Key responsibilities:

- Development of a statistical model for predicting early mortgage repayment.
- Development of a statistical model for forecasting current account balances.
- Implementation of the models.
- Development of documentation for the models.
- Communication with the validation team.
- Communication with the Group's Holding regarding the development of the models.

**Institute of Information Theory and Automation**  
**Department of Adaptive Systems**  
**Location:** Prague, Czech Republic  
**Length of employment:** October 2019 - February 2024

Key responsibilities:

1. **Bachelor thesis:**

*Bayesian estimation for adaptive dynamic decision-making* ([link](#))

- Formulation of the problem of Dynamic decision-making for real-time bidding in online web advertisement.
- Creation of an algorithm that estimates the model of the system and implements it in Matlab.
- Experimental evaluation of the quality of the solution.

**2. Research Assignment:**

*Probabilistic Modeling of Opinion Formation*

- Familiarization with the issue of probabilistic merging of opinions.
- Collection and processing of data about opinions on the features of mobile phones of some selected popular mobile brands.
- Application of the theory of opinion merging to the mobile phone example.

**3. Master’s thesis Topic:**

*Targeted merging of customers’ opinions based on trust* ([link](#))

- Deepening understanding of the issue of opinion merging and the current state of research in this area.
- Building upon the research assignment and proposing a modification of the algorithm that takes into account the subjective level of trust in the provided information.
- Illustrating the solution to the problem of opinion merging using the example of choosing a mobile brand based on the opinions of other users/customers.
- Implementing the algorithm in Matlab environment and applying it to simulated data.

EDUCATION

**Czech Technical University in Prague**

*Faculty of Nuclear Sciences and Physical Engineering*

Prague, Czech Republic

1. Successfully completed the bachelor’s degree program:

*Applied Mathematical Stochastic Methods* (Graduate’s Profile - [link](#))

- Bachelor thesis topic: *Bayesian estimation for adaptive dynamic decision-making* ([link](#))

2. Successfully completed the master’s degree program:

*Applied Mathematical Stochastic Methods* (Graduate’s Profile -[link](#))

- Master’s thesis topic: *Targeted merging of customers’ opinions based on trust* ([link](#))

RESEARCH INTERESTS

Bayesian Statistics, Decision Theory, Time Series Analysis, Machine Learning.

COMPUTER SKILLS

- Programming:
  - R (expert)
  - Python (intermediate)
  - Matlab (intermediate)
  - C++ (Basic knowledge)
- Applications:  $\LaTeX$ , Visual Studio Code, Microsoft Excel, Microsoft Word.
- Operating Systems: Linux, Windows, Mac.

LANGUAGE KNOWLEDGE

- English - C1
- Russian - native speaker
- Czech - native speaker