

## Research Interests

- Design and Analysis of Algorithms
- Distributed Algorithms
- Graph Algorithms
- Algorithmic Game Theory
- Approximation Algorithms

## Education

### Ph.D. in Computer Science

May 2023 – Present

- Topic: Distributed Graph Algorithms
- Supervisor: Prof. Fabian Kuhn
- University of Freiburg (Freiburg, Germany)

### M.Sc. in Computer Science

November 2020 – November 2022

- Saarland University (Saarbrücken, Germany)
- GPA: 3.6/4 (1.4 in German scale)

### B.Sc. in Computer Engineering (Major in Software)

September 2015 – July 2019

- Isfahan University of Technology (Isfahan, Iran)
- GPA: 3.85/4

## Publications

### Laminar Matroid Secretary: Greedy Strikes Back,

Zhiyi Huang, **Zahra Parsaeian**, and Zixuan Zhu,  
*European Symposium on Algorithms (ESA 2024)*,  
[Best Paper Award](#).

### Brief Announcement: Massively Parallel Ruling Set Made Deterministic,

Jeff Giliberti and **Zahra Parsaeian**,  
*ACM Symposium on Principles of Distributed Computing (PODC 2024)*.

### Towards Sub-Quadratic Diameter Computation in Geometric Intersection Graphs,

Karl Bringmann, Sándor Kisfaludi-Bak, André Nusser, and **Zahra Parsaeian**,  
*Symposium on Computational Geometry (SoCG 2022)*.

## Manuscripts

### Approximate Near-Neighbor Problem for Curves using Discrete Fréchet Distance under Translation and Rotation,

**Zahra Parsaeian**.

### FPT Algorithm and Kernel for Minimum $\lambda$ -Edge Connected Subgraphs,

Akanksha Agrawal, Pranabendu Misra, **Zahra Parsaeian**, and Saket Saurabh.

## Services

### Paper reviewer

- SODA 2024
- STOC 2023

## Internships

### Scientific Intern at Max Planck Institute for Informatics

- Supervisor: Dr. Will Rosenbaum
- Subject : **Stable Marriage Problem**

February 2020 – October 2020

- Supervisor: Dr. Christoph Lenzen
- Subject : **Gray Code addition**

August 2019

## Scientific Intern at Isfahan University

- Supervisor: Prof. Farzad Parvaresh
- **Subject : Straggler Mitigation in Distributed Matrix Multiplication**

July 2018 – September 2019

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## Honors and Awards

### Saarland scholarship for international students at the Uds

Summer 2022

- STIBET III completion grant from the DAAD

### Fellowships from Max Planck Institute for Informatics

Aug 2019, Feb 2020

- Funded as visiting scholar on two occasions

### ACM-ICPC

Winter 2017

- Ranked **23rd** Place in **19th** ACM-ICPC West Asia Regionals (Tehran Site)
- Programming language: C++

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## Work Experience

### Teaching Assistant

- **Theoretical Computer Science (Graduate Course)**, Freiburg University, Germany Summer 2024
- **Theoretical Computer Science (Graduate Course)**, Freiburg University, Germany Winter 2023/24
- **Distributed Computing (Graduate Course)**, Freiburg University, Germany Winter 2023/24
- **Theory of Distributed Systems(Graduate Course)**, Freiburg University, Germany Summer 2023
- **Algorithms and Complexity Reading Group**, Freiburg University, Germany Summer 2023
- **Optimization**, Max Planck Institute for Informatics, Saarbrücken, Germany Summer 2022
- **Parameterized Algorithms**, Indian Institute of Technology, Madras, India Winter 2021
- **Parallel Processing (Graduate Course)**, Isfahan University of Technology Spring 2019
- **Parallel Processing (Graduate Course)**, Isfahan University of Technology Spring 2018
- **Design and Analysis of Algorithms**, Isfahan University of Technology Spring 2018

**ACM Student Membership**, Isfahan University of Technology

2015 - 2019

**Student Scientific Association Membership**, Isfahan University of Technology

2017 - 2018

**Introductory Workshop on Parallel Programming**, Isfahan University of Technology

Spring 2018

- Tutor for Graduate Students

**Introductory Workshop on Parallel Programming**, Isfahan University of Technology

Spring 2019

- Tutor for Graduate Students