

## Summary

Sana Ebrahimi is a Computer Science (CS) senior at Sharif University of Technology. She is currently working as a research assistant under the supervision of Professor Nezam Mahdavi-Amiri. Her project is on the applications of optimization in machine learning and deep learning. Sana is hard-working, not afraid to pick up new skills and aims to pursue a PhD in CS after graduation.

## Research Interests

- **Optimization:** nonconvex optimization, linear optimization, combinatorial optimization, nonlinear optimization.
- **Network:** network optimization, social network
- **Machine learning:** artificial intelligence, artificial neural networks, algorithms, computational learning theory.

## Education

### Sharif University of Technology

BS Candidate, Computer Science (CS)

TEHRAN, IRAN

August '14 – June '18

- GPA: 3.1/4
- Relevant Coursework: Design and analysis algorithm, Data structure, Basic and advance programming, Numerical analysis, Stochastic process, Network, Basic linear optimization, Data transfer, Discrete mathematics, Probability and its application, Automata (Theory of Machine Language).
- Current Coursework: Advance optimization, Artificial intelligence

### Roshangar High School

High School Diploma, Math & Physics

TEHRAN, IRAN

August '10 – June '14

- GPA: 4/4

## Technical Skills and Expertise

- Gephi, Quartus, Verilog, Java, Python, Android, MySQL, Latex, Power BI, Algorithms
- professional painting, basketball

## Honors and Awards

- Ranked 328 in the national college entrance exam (Konkour) among 300,000 in Math-Physics major (2014).
- Highest rank in the department's entering class (2014).
- Recipient of Sharif University of Technology full undergraduate student scholarship (2014).
- Won the Mathematics and Algorithms competition prize of MathHome (2013)

## Research Experience

### Sharif University of Technology

Research Assistant, Department of Mathematics and Computer science

January '18 – present

- Assisted Dr. Nezam Mahdavi-Amiri we are working on theoretical optimization and linear and nonlinear programming

### Max Planck Institute

Research Assistant, Department of Software System (Machine teaching group)

July '18 – present

- Assisted Dr. Adish Singla

## Design Experience

Team Member, Ostor (Operating System)

January '17 – July

- Developed an operating system, Ostor, to simulate operating system performance of personal computer used multithreading and object orientation in Java that gives command in command box and works like operating system.

Design CPU (Computer Architecture)

September '16 – January

- Designed and developed memory and CPU that can read from memory and write on it and simulate CPU circles with microprogramming in verilog as well as able to gives inputs and commands separately  
*Won the best design .*

#### **Graphical Calculator (Basic Programming)**

*September '14 –January*

- Developed an graphical calculator with respect to object orientation and latency that gives function name and their inputs and shows output and diagrams those function in time and each diagram have its color

#### **Chess (Design and Analysis Algorithm)**

*January '16 – August*

### **Teaching Experience**

Sharif University of Technology

TEHRAN,

**Teaching Assistant, Department of Mathematics and Computer Science**

*September '17 –January*

- Assisted Dr. [Salman Parsa](#) in teaching two core undergraduate courses(Computer Architecture, Digital Design)
- Evaluated students' performance, taught coding in verilog and quartus, and assisted students with assignments.

**Teaching Assistant, Department of Mathematics and Computer Science**

*January '18 –July*

- Assisted Dr. [Mohammad Ghareyazie](#) in teaching undergraduate courses(Operating system)
- Evaluated students' performance, taught coding in java, and assisted students with assignments and projects.