Sana Ebrahimi *January 29, 1996*

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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, recently she has joined Max-Planck Institute under supervision Dr.Adish Singla in machine teaching group. 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,reinforcement learning, inverse reinforcement learning, deep learning.

Education

Sharif University of Technology — Tehran, Iran
BS Candidate, Computer Science (CS) — 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, Advance optimization, Artificial intelligence, Data transfer, Discrete mathematics, Probability and it's application, Automata (Theory of Machine Language).

Roshangar High School — Tehran, Iran
High School Diploma, Math & Physics — August '10 – June '14

- GPA: 4/4

Technical Skills and Expertise

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

Honors and Awards

- Ranked 328 in the national college entrance exam (Konkoor) 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 we are working on a branch of the Markov decision process problem that two agents collaborate together and probably transition matrix changes in each period of time and each step of each agent change the transition matrix of the other agent and we will use inverse reinforcement learning method.

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*

- Implemented under web chess, AI agent that uses some techniques like alfa-beta pruning, transposition table, and killer heuristic to play chess and predict best opponent's move and maximum score regarding with respect to minimum time in java.

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.