

# Rabee Parhizkary

✉ Rabee.parhizkaru@sharif.edu 📞 +98 9384911162 🔗 <https://www.linkedin.com/in/rabee-parhizkari/>  
🔗 <https://github.com/Rabee-parhizkary>

## EDUCATION

---

**Sharif University of Technology**

**BSc student in Computer Science**

**Cumulative GPA: 15.38/20**

**Last semester:18.2**

### Related Courses

- Passed Courses: 3D Computer Vision, Regression and Data Analysis, Bioinformatics, Online machine learning, Operations research, Advanced Programming, Linear Algebra, Statistics and Applications, Data Structures, Probability and Applications
- Audited courses: Deep learning, Machine learning, Artificial Intelligence in Clinical Practice

### Diploma in Mathematics and Physics

- Farzanegan High School
- Affiliated with the National Organization for Development of Exceptional Talents (NODET) **Cumulative GPA: 19.5/20**

## Honors and Awards

---

**2021 Ranked 395th (top 0.1 %) in the National Universities Entrance Exam for Mathematics and Physics Majors**

**2020 Ranked 37th in the National Mathematics Olympiad (Bronze Medal)**

**Grant for Undergraduate Studies for Outstanding Academic Success )**

## Research Interests

---

- Computer Vision
- Image processing
- Neuroscience
- Deep learning
- Optimization
- Machine learning

## Research Experience

---

- Research Assistant, Cortical orientation selectivity model survey, Under Supervision of Prof. Peivandi
  - Writing a survey on Cortical Orientation Selectivity models
  - Working on a new model for Cortical Orientation Selectivity based on Markov chains(ongoing)

Research Assistant, Auto-encoder based GAN for medical image, Under Supervision of Prof. Vaezi

- Improving the model proposed by Jun Wang , Bohan Lei, Liya Ding , Xiaoyin Xu , Xianfeng Gu , Min Zhang in Autoencoder-based conditional optimal transport generative adversarial network for medical image generation(2024) for Retina image generation by detecting and encoding the binary vessel tree in the retina.
- Creating an algorithm for determining a threshold for clipping singular values.(Ongoing)

## Related Course Projects

---

Project of 3D Computer Vision (Prof.Hanieh Naderi)

- Enhancing the model proposed by Raviteja Vemulapalli and Aseem Agarwala in A Compact Embedding for Facial Expression Similarity(2019)
- Adding a face detector as a pretraining step
- Using a shallow attention dense net architecture(GIT)

Traffic project for Data Analysis and Regression course (Prof.Kasra Alishahi)

- We wanted to determine the most traveled city during Nowrouz in North of Iran
- We had the data of cars that entered or left for each town hourly and daily. We determined whether a town had a lot of entrances because it's merely between 2 towns or a tourist destination.
- Lastly, we determined the touristic cities using clustering and hypothesis testing(GIT)

Digikala project for Data Analysis and Regression course (Prof.Kasra Alishahi)

- Calculating satisfaction of consumers from cosmetic products based on comments published by Digikala(an Iranian online shop)
- Estimating how much Didikala was selling each product
- Combining these variables to find the most profitable product a company can produce(GIT)

## Work Experience

---

Data analysis internship in Novin Institute (Summer 2023)

## Teaching Assistantships

---

- Sharif University of Technology Tehran, Iran
- Advanced Programming: Designing and grading homework Prof.Bomeri, winter 2022
- Advanced Programming: Designing and grading homework Prof.Bomeri, winter 2024
- Statistics and Applications: Designing homework Prof.Mostafid, winter 2024
- Linear Algebra: Designing and grading homework Prof.Bahraini, winter 2024

## Language Proficiency

---

- Persian (Native)
- English (Fluent)

## References

---

- Hosein Peyvandi h.peyvandi@sharif.edu
- Arash Vaezi (avaezi@ce.sharif.edu)

## Skills

---

- Machine Learning Tools: Keras, Pandas, Numpy, Scikit-learn,OpenCV, PyTorch, Tensorflow
- Programming Languages: Python, R, java, Assembly (MIPS)
- Technologies: PostgreSQL, Git
- Other Skills: LATEX, HTML, CSS, Presentation
- Frameworks and Operating Systems: Windows, Git,Mac

## Other Interests and Hobbies

---

- Swimming, member of a regional swimming team
- sculpturing
- knitting and crochet