Seyed Mani Sadati

B.Sc. student in Computer Engineering

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Education

2018–2023	**B.Sc. in Computer Engineering**, Shahid Bahonar University of Kerman, Iran, 19/20.
2011–2018	**Diploma In Mathematics and Physics**, Allameh Helli High School Kerman, Iran. Affiliated with the National Organization for the Development of Exceptional Talents (NODET).

Honors & Awards

2020	**First Place**, CAD Contest at ICCAD 2020. Winner team of problem C: GPU Accelerated Logic Re-simulation.
2018/19	**Bronze Medal**, ACM-ICPC Asia Tehran Regional Contest. Rank 4 in The 2018 ICPC Asia Tehran Regional Contest. Rank 1 in Asia Tehran Internet Online Programming Contest.
2018–2021	**Top 3 GPA rank**, Shahid Bahonar University. Among 120 computer engineering students.
2016, 2017	**Top 70**, National Olympiad in Informatics. Among 10000 students, passed first and second exam.

Papers

- **Seyed Mani Sadati**, Behnam Ghavami, Zhenman Fang, and Lesley Shannon. FitAct: Error Resilient Deep Neural Networks via Fine-Grained Post-Trainable Activation Functions. In *Proceedings of the 2022 Design, Automation & Test in Europe Conference & Exhibition (DATE)*
- **Seyed Mani Sadati**, Mohammad Shahidzade , Behnam Ghavami, Zhenman Fang, and Lesley Shannon. BDFA: A Blind Data Bit-flip Attack on Deep Neural Networks.

Projects

- **GPU Acclerated Logic re-simulation**
  I designed and implemented a new method to optimally parallelize the verilog design of various circuits. I used C++, CUDA and verilog.
- **Fault injection on Deep learning models**
  I studied the robustness of multiple DNN architectures, and designed a new activation function to increase the robustness and reliability of DNNs. I used Python/PyTorch in this project.

- **Blind Data-Free Attack**
  I developed various methods to do an optimal bit-flip attack on DNN's parameters without using any data. I used Python/Pytorch in this project.
- **Full Facial Recognition System**
  I had to implement and design a low-cost full facial recognition system. I used YOLOV5 and SphereFace to do the face detection and recognition. I also implemented a face alignment and other parts of the system using Python/Pytorch, and OpenCV.
- **Saba Programming Contest**
  I implemented solutions and validation checks for each problem of the contest using C++.

Related Courses

- Machine learning(Stanford University on Coursera): 97/100
- Algorithm Design: 20/20
- Compiler Design: 20/20
- Natural Language Processing: 20/20
- Automated Design of Digital Circuits: 20/20
- Probabilistic and statistics: 20/20
- Artificial Intelligence: 18/20

Activities

2019 **Teacher**, Allame Helli High School.
Prepared students for Iranian National Olympiad in Informatics.

2019 **Scientific Team Member**, Saba Programming Contest.
An onsite and online programming contest. The Online contest was held at HackerEarth.

Skills

- **Programming Languages:**
  C/C++, Python, C#, Octave (MATLAB), CUDA
- **Deep Learning**
  Pytorch, Tensorflow, Keras
- **HDL**
  VHDL, Verilog

References

- **Associate Professor Behnam Ghavami**
  Department of Computer Engineering
  Shahid Bahonr University of Kerman
  ghavami@uk.ac.ir