S. Mahdi **H. Miangoleh**

Ph.D. Student · Computing Science

Department of Computing Science, Simon Fraser University, Burnaby, BC, Canada

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Education

Simon Fraser University
Burnaby, BC, Canada

Ph.D in Computing Science — *Sep. 2022 - Expected(Aug. 2026)*

- GPA : 4.13/4.33

Simon Fraser University
Burnaby, BC, Canada

M.Sc in Computing Science — *Jan. 2020 - Aug. 2022*

- GPA : 4.13/4.33

Sharif University of Technology
Tehran, Tehran, Iran

B.Sc in Electrical Engineering — *Sep. 2014 - June 2018*

- Minor in Digital Systems and Devices
- GPA : 3.58/4 (16.6/20)
- Last two years GPA : 3.67/4 (17.36/20)

Experiences

Research Intern
Aug. 2021 - May 2022

Adobe — *Cambridge, Massachusetts (remote)*

Software(C/C++) Developer
Sep. 2017 - 2019

Soroush Media Technology Development — *Tehran, Iran*

- Worked as a member of SCRUM(agile project management) team
- Developed graphical user interface with Qt (C/C++)
- Developed scripts to communicate with back-end servers in order to provide real-time updated information(web services and databases)
- Tested all software prior to applications going live to alleviate bugs and troubleshoot issues
- Developed scripts to communicate with XMPP servers in order to provide instant messaging service
- Link : https://sapp.ir

Research Experiences

Interactive Editing of Monocular Depth
Computer Vision

Simon Fraser University — *Published at Proc. SIGG. Post. 2022*

- A web-based and platform-independent tool to support wider adoption of 3D photography techniques in everyday digital photography.
- (Project webpage)

Visual Distraction Reduction
Computer Vision

Adobe Research

- Applying deep learning to reduce the saliency of the distractor objects present in a scene.

High-Res Monocular Depth Estimation
Computer Vision

Simon Fraser University — *Published at Proc. CVPR 2021*

- Boosting Monocular Depth Estimation Models to High-Resolution viaContent-Adaptive Multi-Resolution Merging - Proc. CVPR 2021
- (Project webpage)

Computational Flash Photography
Computational Photography

Simon Fraser University

- Computational flash generation or decomposition using a neural network that enables various image manipulation and edits of the extracted or generated flash illumination.

Deep learning in Autonomous Vehicles
M.Sc. Thesis

Sharif University of Technology — *Dropped Out*

- Using deep learning algorithms for image processing in autonomous vehicles because of its no-need-to-feature-engineering nature and high accuracy is one of the best choices. but the limitation of resources in embedded systems and heavy computations of deep learning algorithms must be taken care of. we try to use GPUs and parallel computing techniques to achieve this goal.

Skills

Machine Learning Frameworks Pytorch, Tensorflow, Keras
Programming Languages OOP, C/C++, Python, Java, MATLAB

Publications

Interactive Editing of Monocular Depth
In Proc SIGGRAPH Posters 2022
Obumneme Stanley Dukor, S. Mahdi H. Miangoleh, Mahesh Kumar Krishna Reddy Long Mai[2], Yağız Aksoy[1]
Simon Fraser University
- Project webpage

Boosting Monocular Depth Estimation Models to High-Resolution via Content-Adaptive Multi-Resolution Merging
In Proc CVPR 2021
S. Mahdi H. Miangoleh*[1], Sebastian Dille*[1], Long Mai[2], Sylvain Paris[2], Yağız Aksoy[1]
Simon Fraser University[1], Adobe Research[2]
- Project webpage

Theoretical Foundations of Learning in Mathematical Sciences
ISBN:978-600-8533-12-2
S. Hasan H. Miangoleh, S. Mahdi H. Miangoleh
2017

Honors & Awards

Sep. 2022 **Awarded,** Computing Science graduate fellowship, Simon Fraser University
Sep. 2022 **Awarded,** Simon Fraser University graduate fellowship, Simon Fraser University
Jan. 2021 **Awarded,** Computing Science graduate fellowship, Simon Fraser University
Jan. 2020 **Awarded,** Computing science graduate fellowship, Simon Fraser University
2018 **Ranked 8th,** in the Nationwide University Entrance Exam known as Konkoor for M.Sc. degree in Electrical Engineering
2014 **Ranked 33th,** in the Nationwide University Entrance Exam known as Konkoor for B.Sc. degree in Engineering

Language Skills

Persian
Native

English
Fluent
- TOEFL : 111/120 (Reading 30/30 Listening 30/30 Speaking 27/30 Writing 24/30)
- CELPIP : (Reading 12/12 Listening 12/12 Speaking 10/12 Writing 9/12)