Majid Rasouli

Curriculum vitae

Room 3345, MEB, University of Utah, SLC, UT, 84112
+1 (801) 9702921
maj.rasouli@gmail.com
www.linkedin.com/in/majid-rasouli/

Education

2015 – Present **Computer Science**
PhD Candidate, 3.86/4
University of Utah, USA

2011 – 2013 **Mathematics**
Masters, 16.31/20
Sharif University, Iran
*Ranked No.**1** in Iran on QS*

2006 – 2011 **Mathematics**
Bachelors, 15.03/20
Received certificate of **top 3** graduates among 20
Amirkabir University, Iran
*Ranked No.**2** in Iran on QS*

Software skills

Main **C++ (3+ years** experience), git, MPI, OpenMP (Multithread), Linux, SLURM

Prototyping MATLAB, Julia

Visualization Paraview, Javascript, CSS, D3

Familiar Python, R Studio, PySpark, Bash

Game Engine Basic: Unreal Engine, Unity

Honors and Awards

- Certificate for Graduation as **Top 3 GPA**'s Among 20 in 2006 Class, Bachelors in Mathematics
- Ranked in **Top 1 Percent** in The National University Entrance Exam for Masters Degree, 2011, Iran.
- Scholarship for International HPC Summer School 2017, University of Colorado, Boulder
- Scholarship for SDSC Summer Institute 2018, San Diego Supercomputer Center, UCSD

Workshops

2017 **International HPC Summer School**
Attendee
University of Colorado – Boulder

2018 **SDSC Summer Institute 2018**
Attendee
San Diego Supercomputer Center

Select Courses

Undergrad Basic Programming (C), Advanced Programming (C++), Linear Algebra, Logic, Numerical Linear Algebra, Probability and Stat 1 & 2,

Graduate Advanced Algorithms, Algorithms and Approximation, Parallel Computing HPC, Big Data Computer Systems, Advanced Scientific Comp 1 & 2, Inverse Problems, Visualization

Experiences

2015-Now **Graduate Research Assistant**
Dr. Hari Sundar's Lab
University of Utah

Fall 2016 **Teaching Assistant**
Probability and Statistics
University of Utah
Helped students with R Studio

Fall 2017 **Teaching Assistant**
Foundations of Data Analysis
University of Utah
Helped students with Python to do basic Machine Learning

Projects

Jan 2016 – Present

Developer
Saena

Saena is a highly scalable algebraic multigrid solver written in **C++** parallelized with *MPI* and *OpenMP*. It does different linear algebra operations in serial and parallel. I have started this library as the only developer, under supervision of Dr. Hari Sundar.
https://github.com/majidrp/Saena

Published Paper

Developer, First Author
Matrix-Vector Product Optimization

We have optimized matrix-vector product, which is the most important operation in algebraic multigrid. It is implemented in Saena (C++). The paper is accepted in ***IEEE HPEC18***.

Available

Coder
USA Demographic Analysis

Used *Javascript, CSS* and *D3* to make a visualization for USA demography.
https://majidrp.github.io/DemographicAnalysis/

To see other projects please check my linkedin page.