

Majid Rasouli

Curriculum vitae

Room 3345, School of Computing
University of Utah
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EDUCATION

2015 – PRESENT **Computer Science**
PHD CANDIDATE, 3.86/4
University of Utah, USA

2011 – 2013 **Mathematics**
MASTERS, 3.63/4
Sharif University, Iran
Ranked No.1 in Iran on QS

2006 – 2011 **Mathematics**
BACHELORS, 3.00/4
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),
SLURM

PROTOTYPING MATLAB, Julia

VISUALIZATION Paraview, Javascript, CSS, D3

FAMILIAR Python, R Studio, PySpark,
Linux, Bash

GAME ENGINE Unreal Engine (Basic),
Unity (Basic)

SELECT COURSES

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

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

WORKSHOPS

JUN 25 – 30, 2017 **IHPCSS17**
ATTENDEE
University of Colorado

AUG 6 – 10, 2018 **SDSC Summer Institute**
ATTENDEE
San Diego Supercomputer
Center

NOV 12 – 17, 2017 **SC17**
STUDENT VOLUNTEER
Denver, Colorado

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,
multi-thread parallel and multi-processor parallel.
I am the only developer of this library under su-
pervision of Dr. Hari Sundar.
<https://github.com/majidrp/Saena>

ACCEPTED PAPER

Developer
Matrix-Vector Product Optimization

We have optimized matrix-vector product, which is
the most important operation in algebraic multi-
grid. It is implemented in Saena. The paper is
accepted in **IEEE HPEC18**.

AVAILABLE

Coder
USA Demographic Analysis

Used *Javascript*, *CSS* and *D3* to make a visualiza-
tion for USA demography.
<https://majidrp.github.io/DemographicAnalysis/>

For more projects please check my linkedin.