ERFAN HOSSEINI SERESHGI

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SUMMARY

I am a python software developer with notable research experience in computational geometry and algorithm development, in particular, geospatial algorithms and graph/shape comparison methods.

PROFESSIONAL EXPERIENCE

Researcher, LA-CEAL, Tulane School of Public Health 2021

New Orleans, LA

– I implemented a program to study and observe public response to covid19 and its vaccines on social media using python (NLP)

Researcher, Geographic Momentary Assessment, Public Health 2021

New Orleans, LA

– I developed a python program to manage relatively massive datasets of landmarks and users (patients) and compute users' daily, weekly and monthly exposure to alcohol, drugs, crime, recreational centers, etc

IT Specialist, Tulane Pre-college Program Summer 2020

New Orleans, LA

– I provided troubleshooting and IT support to the teachers and students during their online courses.

Head of IT Guru, AIESEC in Iran 2017 – 2018

Tehran, Iran

– I was the manager of the website and worked with a team on an online customer support bot

Front-end Developer Internship, Moduland Summer 2017

Tehran, Iran

– I designed and developed a responsive website

Project Manager, Dynamic Portal 2015 – 2017

Tehran, Iran

– DP was my own project. I supervised a development team working on a new student info system and LMS at Amirkabir University of Technology

EDUCATION

Tulane University – New Orleans – Ph.D. 2018 – present

– Computer science, computational geometry, embedded graphs

Amirkabir University of Technology – Tehran – Bachelor of Science 2014 – 2018

– Computer science, computational geometry

RESEARCH AND PUBLICATIONS

Merging Roadmaps using Graph Distance Measures 2022
Erfan Hosseini Sereshgi and Carola Wenk
- *Fall Workshop on Computational Geometry (FWCG)*

Graph Sampling for Map Comparison (received best paper award) 2021
Jordi Aguilar, Kevin Buchin, Maike Buchin, Erfan Hosseini Sereshgi, Rodrigo I. Silveira and Carola Wenk
- *ACM Sigspatial, Spatial Gems*

Measuring Length-Preserving Fréchet Correspondence for Graphs in $\mathbb{R}^2$ 2021
Kevin Buchin, Brittany Terese Fasy, Erfan Hosseini Sereshgi and Carola Wenk
- *Fall Workshop on Computational Geometry (FWCG)*

Improved Map Construction using Subtrajectory Clustering 2020
Kevin Buchin, Maike Buchin, Joachim Gudmundsson, Jorren Hendriks, Erfan Hosseini Sereshgi, Vera Sacristán, Rodrigo I. Silveira, Jorrick Sleijster, Frank Staals and Carola Wenk
- *ACM Sigspatial, LocalRec*

Computing Relevant Subtrajectory Bundles Faster 2020
Erfan Hosseini Sereshgi and Carola Wenk
- *SoCG, Young Researchers Forum*

Clustering Gene Expression with Polygonal Chain Alignment 2018
Capstone project

PRESENTATIONS

Merging Roadmaps using Graph Distance Measures 2022
Fall Workshop on Computational Geometry (FWCG)

Graph Sampling for Map Comparison 2021
ACM Sigspatial, Spatial Gems

Measuring Length-Preserving Fréchet Correspondence for Graphs in $\mathbb{R}^2$ 2021
Fall Workshop on Computational Geometry (FWCG)

The Study of Gentrification on Social Urban Simulation - How Income and Interest Can Shape Neighborhoods 2020
Tulane University

Improved Map Construction using Subtrajectory Clustering 2020
ACM Sigspatial, Location-based Recommendations, Geosocial Networks and Geoadvertising

Computing Relevant Subtrajectory Bundles Faster 2020
SoCG, Young Researchers Forum

Clustering Gene Expression with Polygonal Chain Alignment 2018
Amirkabir University of Technology

A brief Intro to Computational Geometry 2017
Amirkabir University of Technology, Graduate studies seminar

TEACHING EXPERIENCE

Arduino course at Tulane Pre-college Program Summer 2022
Instructor

Introduction to Discrete Math Lab Fall 2020
Teaching assistant

Introduction to Algorithms Lab Fall 2019
Teaching assistant

Python game design at Tulane Pre-college Program Summer 2019 and 2022
Instructor

Intro to Computer Science I Lab (Python) *Fall 2018, Spring 2019, Spring 2020*
Teaching assistant

Operating systems Lab/Workshop Spring 2017
Teaching assistant

C++ Programming teacher at Helli 4 high school 2014 – 2015
Instructor

LEADERSHIP & VOLUNTEER EXPERIENCE

- Senator at Tulane Graduate and Professional Student Association (2020-2022)
- IT team leader at AIESEC in University of Tehran (2017-2018)
- Marketing designer at AIESEC in Amirkabir University of Technology (Spring 2017)
- AIESEC global volunteer for raising public awareness about clean energy and recycling in Guangzhou, China. (Summer 2016)
- Member of scientific association of math and computer science at Amirkabir University of Technology (2015-2016)

CERTIFICATES

- Java programming from Amirkabir University of Technology
- Android development from Amirkabir University of Technology
- Web development and web design from Amirkabir University of Technology
- CITI Group1. Biomedical Researchers
- CITI Group4. IRB, Biomedical Research

SKILLS & ABILITIES

- Skilled in Python, Java and C++
- Familiar with HTML, CSS and Javascript
- Have worked with R and R studio
- Familiar with Git and Visual Paradigm
- Have some basic knowledge about Android Studio
- Have experience working with Adobe Photoshop and illustrator
- Familiar with QGIS and Gdal

HONORS & AWARDS

- Best paper award at ACM Sigspatial: Spatial Gems (2021)
- Ranked 6th in the Iranian national CS graduate school entrance exam (2018)
- Ranked among top 5 computer science students at Amirkabir University of Technology (class of 2018)

- Semi-finalist in 2014 BAYAN coding contest in Iran
- Ranked among 3% in the Iranian national university/college entrance exam (2014) (More than 60,000 students)
- Was selected by and studied at the national organization for development of exceptional talents (NODET) in Iran