

MIROSLAV TUSHEV

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EDUCATION

Ph.D. in Software Engineering

ongoing

Louisiana State University, Department of Computer Science

Topic: Digital Discrimination in Sharing Economy

Advisor: Anas Mahmoud

M.S. in Computer Science

August 2018

Louisiana State University, Department of Computer Science

Advisor: Anas Mahmoud

B.Sc in Management

May 2014

The Russian Presidential Academy of National Economy and Public Administration

RESEARCH

Mobile app analytics, discrimination in sharing economy, human-mobile interaction, code evolution analysis, human factors in OSS development, bug localization natural language processing, and mining software repositories.

PUBLICATIONS

1. *A Framework for Digital Discrimination in Sharing Economy*
M. Tushev and A. Mahmoud, Intr. Conf. Soft. Eng. (**ICSE**), (under review) 2021.
2. *Modeling User Concerns in Sharing Economy: The Case of Food Delivery Apps*
G. Williams, **M. Tushev**, F. Ebrahimi, and A. Mahmoud, Auto. Soft. Eng. (**ASEJ**), 2020.
3. *Digital Discrimination in Sharing Economy: A Requirements Engineering Perspective*
M. Tushev, F. Ebrahimi, and A. Mahmoud, Inter. Requirements Eng. Conf. (**RE**), 2020.
4. *Linguistic Documentation of Software History*
M. Tushev and A. Mahmoud, Inter. Conf. on Program Comprehension (**ICPC**), 2020.
5. *On Combining IR Methods to Improve Bug Localization*
S. Khatiwada, **M. Tushev**, and A. Mahmoud, Inter. Conf. on Prog. Compr. (**ICPC**), 2020.
6. *Using GitHub in Large Software Engineering Classes: An Exploratory Case Study*
M. Tushev, G. Williams, A. Mahmoud, Computer Science Education (**CSE**), 2019.
7. *Mobile App Privacy in Software Engineering Research: A Systematic Mapping Study*
F. Ebrahimi, **M. Tushev**, A. Mahmoud, arXiv preprint arXiv:1910.03622, 2019.
8. *Linguistic Change in Open Source Software*
M. Tushev, S. Khatiwada, A. Mahmoud, Intr. Conf. on Soft. Main. Evol (**ICSME**), 2019.
9. *An Information Theoretic Approach for IR-Based Software Bug Localization*
S. Khatiwada, **M. Tushev**, A. Mahmoud, Information and Software Technology (**IST**), 2018, vol. 93, pp. 45-57.

PRESENTATIONS AND TALKS

1. Digital Discrimination in Sharing Economy: A Requirements Engineering Perspective
Inter. Requirements Engineering Conf. (**RE**), 2020.
2. Linguistic Documentation of Software History
Inter. Conf. on Program Comprehension (**ICPC**), 2020.

3. Linguistic Change in Open Source Software
International Conference on Software Maintenance and Evolution (ICSME), 2019.

WORK EXPERIENCE

Research Assistant

May 2018 to present

Louisiana State University, Department of Computer Science and Engineering

- I conduct research in the area of Software Engineering under the supervision of Dr. Anas Mahmoud. In my research, I tackle subjects related to mobile app store analytics, with focus on user concerns in Sharing Economy apps (Uber, Lyft, etc.). I am also interested in mining software repositories, with emphasis on linguistic change in Open Source Software (OSS) and using OSS in SE education.

Teaching Assistant

August 2018 to May 2020

Louisiana State University, Department of Computer Science and Engineering

- Assisted students in the lab, graded student submissions and exams, provided help during office hours, taught Computer Science courses.
- CSC 4330 Software Systems Development (100+ students)
- CSC 2262 Numerical Methods with MATLAB (60 students)
- CSC 1351 Computer Science II for Majors with Java (100+ students)
- CSC 1253 Introduction to Computer Science with C++ (up to a 100 students)

Teaching Assistant

June 2019

Louisiana State University, Department of Computer Science and Engineering

- Taught intro to Computer Science and Programming for K-12 students (summer camp)
- Assisted students in the summer camp: 2 weeks and 2 groups of students (9th grade and 12th grade)
- Gave lectures on Python programming, including basics (I/O, data structures, control flow) and advanced (sorting algorithms)
- Helped students with SparkFun (Arduino-based) kits and Java programming, basic hardware programming
- Gave tours of Louisiana State University campus to students

Research Assistant

June 2019

Louisiana State University, School of Library & Information Science

- Worked under the supervision of prof. Seungwon Yang, on identifying fake news on *Twitter* in regards to natural disasters, specifically, hurricane Harvey
- Using a large *Twitter* dataset, conducted manual and automated analysis of tweet content
- Used Python libraries (NumPy, Matplotlib, NetworkX) for analyzing tweet content and visualization tweet/retweet graphs

Graduate Assistant

August 2015 to May 2018

Louisiana State University, International Services Office

- Compiled documents for H1B visas
- Filled out necessary forms for USCIS and Dept. of Labor (LCA, I-129, I-907, etc.)
- Assisted in Green Card application process – filled out petitions and collected documents
- Managed employee data using Microsoft Office

SAMPLE PROJECTS

Linguistic Processor

Research Project

- Extract top- N projects (links) based on star-rating and programming language (Java, C#, Python, or JS) from *GitHub*
- Download all and (or) missing releases for a project(s)
- Extract identifier names from a code base using regular expressions and split them into their constituent forms
- Analyze project's language evolution using metrics from our papers (words added, words removed, linguistic change)
- Collect statistics on the project(s): *GitHub* statistics (stars, forks, contributors, etc) and local statistics (kLOC, number of releases, linguistic change metrics, etc).
- The project resulted in 2 publications in the following venues: **ICPC** and **ICSME**.
- **Technologies used:** C# (LINQ, async, etc.), WPF, Octokit, OxyPlot.

i2phistory for Volatility

Class Project

- Created a plugin for Volatility suite that extracts the website history artifacts from *i2p.exe* process.
- Used a) yara-rules or b) regular expressions to match the footprint of browsing history.
- Output the websites that a user visited.
- **Technologies used:** Python, Volatility.

TECHNICAL EXPERIENCE

- Skills: Python, Java, C#, C, Bash, tex, MATLAB, html/CSS, git
- Statistics: SPSS, R, SciPy, TensorFlow

PROFESSIONAL SERVICE

Web and Social Media Chair

CrowdRE, 2020