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Sivana Hamer
sivanahamer

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Computer Science Ph.D. Student at North Carolina State University interested in empirical software engineering research to help software development and developers.

EDUCATION

North Carolina State University ..... North Carolina,United States
PhD. Student Computer Science 2023-pres.
Advisor: Dr. Laurie Williams

Universidad de Costa Rica ..... San José, Costa Rica
M.Sc. Computer Science and Informatics 2023
Thesis: Mining software repositories to automatically measure developer code contributions.
Advisor: Dr. Christian Quesada-López
Grade: 9.94/10.

B.S. Computer Science and Informatics 2020
Grade: 9.72/10. Graduation with honors.

EXPERIENCE

Universidad de Costa Rica ..... San José, Costa Rica
Interim instructor - Escuela de Ciencias de la Computación e Informática 2020 - 2023
Imparted courses: Software Design (CI-0136), Databases (CI-0127), Software Engineering and Database Integrator Project (CI-0128), Programming 1 (CI-0112), and Computer principles (CI-0202).

Carnegie Mellon University ..... Pennsylvania, United States

Research internship as student visitor - Software and Societal Systems Department jan - mar 2022

With: Dr. Bogdan Vasilescu

Universidad de Costa Rica ..... San José, Costa Rica
Researcher (various) - Centro de Investigaciones en Tecnologías de Información y Comunicación 2019 - 2023
Research projects: "Automated procedure for measuring contributions from repositories of software development projects". (Project No. 834-C1-011). Research instructor. "Empirical evaluation of a methodology for the automation of the measurement of software functional size". (Project No. 834-B8-A27). Research instructor, graduate research assistant and undergraduate research assistant.

Universidad de Costa Rica ..... San José, Costa Rica
Undergraduate teaching assistant - Escuela de Ciencias de la Computación e Informática 2018 - 2019
Courses: Integrating project of software engineering and databases (CI-0128), Software engineering (CI-0126), and Probability and statistics (CI-0115).

RESEARCH INTERESTS

Data mining, big data, program analysis, software engineering, empirical methods, mining software repositories, software measurement, value-based software engineering, and software security.

PUBLICATIONS

[P8] **Hamer, Sivana**, Christian Quesada-López, and Marcelo Jenkins. How have we researched developers' contributions in software engineering? a systematic mapping study. In *submission*

[P7] Erik Kuhlmann, **Hamer, Sivana**, and Christian Quesada-López. Visualización de software como ciudad: Un análisis de percepciones y experiencias de estudiantes. In *Latin American Computing Conference (CLEI)*. IEEE, 2023

[P6] **Hamer, Sivana**, Christian Quesada-López, and Marcelo Jenkins. Students' perceptions of integrating a contribution measurement tool in software engineering projects. In *IEEE International Conference on Software Engineering Education and Training*, 2023

[P5] **Hamer, Sivana**, Christian Quesada-López, and Marcelo Jenkins. Automatically recovering students' missing trace links between commits and user stories. In *Conferencia Iberoamericana de Software Engineering (CIbSE)*, 2021

[P4] **Hamer, Sivana**, Christian Quesada-López, and Marcelo Jenkins. Students projects' source code changes impact on software quality through static analysis. In *Quality of Information and Communications Technology*, pages 553–564. Springer International Publishing, 2021

[P3] **Hamer, Sivana**, Christian Quesada-López, Alexandra Martınez, and Marcelo Jenkins. Using git metrics to measure students' and teams' code contributions in software development projects. *CLEI Electronic Journal*, 2021

[P2] **Hamer, Sivana**, Christian Quesada-López, Alexandra Martínez, and Marcelo Jenkins. Measuring Students' Source Code Quality in Software Development Projects Through Commit-Impact Analysis. In *International Conference on Information Technology & Systems*, pages 100–109. Springer International Publishing, 2021

[P1] **Hamer, Sivana**, Christian Quesada-López, Alexandra Martínez, and Marcelo Jenkins. Measuring students' contributions in software development projects using Git metrics. In *2020 XLVI Latin American Computing Conference (CLEI)*. IEEE, 2020

LANGUAGES

- *Native or bilingual:* English and spanish.

TECHNOLOGIES

- *Programming languages and other technologies:* Python, Java, R, LaTeX, C#, C++, C, HTML, CSS, UML, JavaScript, Bash, Microsoft SQL Server, MySQL, and Neo4j.
- *Frameworks and libraries:* ASP.NET, Flask,NUnit, JUnit, Selenium, Bootstrap, jQuery, React, and Unity.
- *Software tools:* Git, Bamboo, Jenkins, JIRA, Microsoft Visual Studio, and Visual Studio Code.