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Sivana Hamer
sivanahamer

Sivana Hamer

Computer Science Ph.D. Student at North Carolina State University interested in empirical software engineering research to help software development and developers. I work in the Realsearch and WSPR research groups, advised by Dr. Laurie Williams. I am currently researching software supply chain security.

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: 9.93/10. Graduation with honors.

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

Software engineering, software security, software supply chain, empirical methods, mining software repositories, software measurement, software assessment, and value-based software engineering.

AWARDS

- *Goodnight Doctoral Fellowship.*
- *North Carolina State University Provost's Doctoral Fellowship.*

PUBLICATIONS

[P9] **Hamer, Sivana**, Marcelo d'Amorim, and Laurie Williams. Exploring students' behaviors and perceptions in continuous measurement of software projects. In *Deep Learning Security and Privacy Workshop*. IEEE Security and Privacy Workshops (SPW), 2024

[P8] Christian Quesada-López, **Hamer, Sivana**, and Marcelo Jenkins. Exploring students' behaviors and perceptions in continuous measurement of software projects. In *Latin American Computing Conference (CLEI)*. IEEE, 2024

[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.