FRANCESKA XHAKAJ

https://www.franceskaxhakaj.com/
francesx@cs.cmu.edu ◇ (702)-934-3574
5000 Forbes Avenue, Pittsburgh, PA 15213

EDUCATION

2015 - present	**Ph.D. Human-Computer Interaction** Human-Computer Interaction Institute, School of Computer Science **Carnegie Mellon University**, Pittsburgh, PA Advisors: Amy Ogan & Vincent Aleven Research Interest: Using Personal Informatics to support teaching at the university level
2015 - 2017	**M.S. Human-Computer Interaction** Human-Computer Interaction Institute, School of Computer Science **Carnegie Mellon University**, Pittsburgh, PA
2015 - present	**PIER Associate** Program for Interdisciplinary Education Research funded by IES (Institute of Education Sciences)
2011 - 2015 GPA: 3.92/4.00	**B.S. Computer Science** **Lafayette College**, Easton, PA Minor in Mathematics Summa Cum Laude, Honors in Computer Science Thesis: Intelligent tutors and granularity: A new approach to Red Black Trees. Advisor: Dr. Chun Wai Liew

RESEARCH EXPERIENCE

▲ Carnegie Mellon University

2018	*Project*: Improving Introductory Computer Programming Instruction by Supporting Conceptual Learning with an ITS with Dr. Vincent Aleven
2015 - 2018	*Project*: Helping Teachers Help Students: Teacher's Use of ITS Analytics to Improve Learning with Dr. Vincent Aleven and Dr. Bruce M. McLaren
Summer 2015	*Project*: Integrating Errors into the Lynnette Cognitive Tutor with Dr. Vincent Aleven
Summer - Fall 2014	*Project*: Integrating Intelligent Tutoring Systems in MOOCs Undergraduate Student Researcher with Dr. Vincent Aleven

▲ Other Research Experience

Spring 2014	*Project*: Tutors to support geology field projects EXCEL Student Researcher with Dr. Chun Wai Liew at **Lafayette College**
January 2013	*Project*: Computational Modeling of Fish Evolution EXCEL Student Researcher with Dr. Chun Wai Liew at **Lafayette College**
Summer 2012	*Project*: Using HMM and the Viterbi Algorithm on the Iterated Diner's Dilemma game EXCEL Student Researcher with Dr. Chun Wai Liew at **Lafayette College**
Summer 2013	*Project*: Studying the dynamic behavior of JavaScript objects Undergraduate Student Researcher with Dr. Barbara G. Ryder at **Virginia Tech** PROLANGS@VT research group

CONFERENCE PUBLICATIONS

1. **Xhakaj, F.**, & Aleven, V. (2018). Towards Improving Introductory Computer Programming with an ITS for Conceptual Learning. In *International Conference on Artificial Intelligence in Education,* pp. 535-538.
2. Bodily, R., Kay, J., Aleven, V., Davis, D., Jivet, I., **Xhakaj, F** & Verbert, K. (2018) Open learner models and learning analytics dashboards: A systematic review. In *Proceedings of the International Conference on Learning Analytics and Knowledge,* pp. 41-50.
3. **Xhakaj, F.**, Aleven, V., McLaren, B.M. (2017). Effects of a Teacher Dashboard for an Intelligent Tutoring System on Teacher Knowledge, Lesson Planning, Lessons and Student Learning. In *Proceedings of the European Conference on Technology Enhanced Learning, pp.* 315-329.
4. **Xhakaj, F.**, Aleven, V., McLaren, B.M. (2017). Effects of a dashboard for an intelligent tutoring system on teacher knowledge, lesson plans and class sessions. In *Proceedings of the International Conference on Artificial Intelligence in Education, pp.* 582-585.
5. **Xhakaj, F.**, Aleven, V., McLaren, B.M. (2016). How teachers use data to help students learn: Contextual Inquiry for the design of a dashboard. In *Proceedings of the European Conference on Technology Enhanced Learning, pp.* 340-354.
6. Aleven, V., **Xhakaj, F.**, Holstein, K, & McLaren, B. M. (2016). Developing a teacher dashboard for use with intelligent tutoring systems. In *Proceedings of the International Workshop on Teaching Analytics at the European Conference On Technology Enhanced Learning.*
7. Holstein, K., **Xhakaj, F.**, Aleven, V., & McLaren, B. M. (2016). Luna: A dashboard for teachers using intelligent tutoring systems. In *Proceedings of the International Workshop on Teaching Analytics at the European Conference On Technology Enhanced Learning.*
8. Aleven, V., Sewall, J., Popescu, O., **Xhakaj, F.**, Chand, D., Baker, R. S., & Gasevic, D. (2015). The beginning of a beautiful friendship? Intelligent tutoring systems and MOOCs. In *Proceedings of the International Conference on Artificial Intelligence in Education,* pp. 525–528.
9. Liew, C. W., & **Xhakaj, F.** (2015). Teaching a complex process: Insertion in Red Black Trees. In *Proceedings of the International Conference on Artificial Intelligence in Education,* pp. 698–701.
10. **Xhakaj, F.**, & Liew, C. W. (2015). A new approach to teaching Red Black Trees. In *Proceedings of the Conference on Innovation and Technology in Computer Science Education, ITiCSE '15*, pp. 278–283.

JOURNAL PUBLICATIONS

1. Wei, Sh., **Xhakaj, F.**, & Ryder, B.G. (2015) Empirical Study of the Dynamic Behavior of JavaScript Objects. *Journal of Software: Practice and Experience, 46*, 7, 867–889.

UNPUBLISHED SENIOR THESIS

1. **Xhakaj, F.** (2015). Intelligent tutors and granularity: A new approach to Red Black Trees. Unpublished senior thesis, Department of Computer Science, Lafayette College, Easton, Pennsylvania. USA.

TEACHING AND MENTORING EXPERIENCE

▲ Carnegie Mellon University

Instructor **Principles of Computing (15-110),** *Summer 2 2019*

Head TA **User-Centered Research and Evaluation (UCRE),** *Fall 2018*
Took part in course and curriculum redesign including: deciding topics/concepts to cover during the course, creating learning goals for the projects and individual assignments, structuring projects and assignments over the semester. Created some assignments, projects and questions in the final exam and designed grading rubrics for assignments/the exam. Taught recitation of 20 students, supervised and graded individual and group student work, held office hours.

TA **Programming Usable Interfaces (PUI),** *Spring 2018*
Taught recitation of 20 students, designed some labs and homework assignments, created some quiz and exam questions, graded student work, held office hours.

Mentor **Undergraduate Independent Study,** *Fall 2018, Spring 2019*
Mentored two undergraduate students in their Independent Study projects.

Guest Lecture **Programming Usable Interfaces (PUI),** *Spring 2018*
Lecture on some user-centered design methods and examples of their use in my own research.

Mentor	**[LearnLab Summer School at CMU](), ITS Track,** *Summer 2015 - 2018* Mentored groups of students in developing Intelligent Tutoring Systems for various domains.
Mentor	**Research Experience for Undergraduates (REU),** *Summer 2016* Mentored five students as they conducted research and software development over the summer.

▲ Lafayette College

TA	**Algorithms and Data Structures (CS150),** *2013 - 2014* Led and oversaw lab sessions, built some assignments and lab worksheets.

AWARDS AND HONORS

2015	Summa Cum Laude, Honors in Computer Science, Lafayette College
2014	Upsilon Pi Epsilon Scholarship Award, Lafayette College
2014	James P. Schwar Prize, Lafayette College
2011 - 2015	Walter Oechsle Scholarship, Lafayette College
2012, 2013	Grace Hopper Celebration of Women in Computing Scholarship, Grace Hopper Conference

LEADERSHIP AND SERVICE

▲ Carnegie Mellon University

2019 - present	Director of Community Building for Teaching at CMU Working with Teaching Track faculty and other students to build and develop a community at CMU for faculty and students who are interested in teachin
2017 - present	Women in SCS, organizing committee
2017 - 2018	SCS4All Initiative, organizing committee
2017	Opportunities for Undergraduate Research in Computer Science (OurCS) Organizer
2015, 2019	HCII Prospective Ph.D. Student Open House Organizer

▲ Lafayette College

2012-2015	Women in Computing, Founder and President
2014-2015	Upsilon Pi Epsilon Club, President

SKILLS

Programming Languages	Java, Python, JavaScript, HTML, CSS, C++, C, R, Jess, Intel IA32
Tools	CTAT, Django, Ajax, jQuery, Heroku, NodeJs, SQLite, LaTex, Mathematica, WordPress, Sketch, InVision, Adobe: Photoshop, Flash Player, InDesign
Research Methods	Contextual Inquiry, Interpretation Sessions, Affinity Diagramming, Speed Dating, Storyboarding, Prototyping, Think Alouds, Classroom Studies
Languages	English, Albanian, Italian, French, Greek, Korean