Lateefah Al-Naimi

lateefah.alnaimi@colorado.edu | +1-720-742-1702 | www.lateefah.info

EDUCATION

PhD in Computer Science | University of Colorado Boulder   *Aug '20 - present*
Boulder, Colorado

Advisor: Mirela Alistar, Living Matter Lab
Currently taking an applied machine learning course.

MSc in Human-Computer Interaction | University College London   *Sep '16 - Sep '17*
London, United Kingdom

Advisor: Duncan Brumby
Dissertation: "Thematic analysis of attitudes towards automated navigation using transport services as analogies"

BSc in Computer Science | Qatar University   *Sep '10 - Jun '14*
Doha, Qatar

Advisor: Osama Halabi
Senior design project: "Investigation of a haptic seat and high-fidelity driving simulator"

RESEARCH EXPERIENCE

EnrichSeq: A pipeline for analysis of metagenomic data in bacteriophage samples   *Nov '20 - present*

- Co-created an algorithmic pipeline for the classification and estimation of relative abundance of bacteriophage clusters in large samples.
- Used Nextflow framework, Python, bash scripting, MegaHIT genome assembly, Kraken2 classification, and more.

Qualitative study for navigation in autonomous vehicles   *May - Sep '17*

- Performed qualitative research on human factors, including trust and mental engagement involved in navigation in autonomous vehicles.
- Conducted contextual inquiry of driving scenarios where passengers had to relinquish control of navigation (Uber versus London black cabs).
- Ran pre- and post-test interviews.
- Evaluated interview transcripts using thematic analysis.

Vibro-tactile navigation in a driving simulator   *Nov '13 - Oct '14*

- Implemented a virtual reality driving simulator integrated with a haptic seat and Logitech driving set.
- Developed the VR simulator with three levels of immersion: computer monitor, head-mounted display, and CAVE installation.
- Conducted a user study comparing audio and vibrotactile navigation prompts.

PROFESSIONAL EXPERIENCE

Industry

User Experience Specialist (part-time) | Droobi Health   *Oct '18 - Jan '19*
Doha, Qatar

- Designed and conducted usability studies for a diabetes management mobile application.
- Proposed a variety of enhancements to the developing iOS app through sketches and wireframes

Systems Engineer | Qatar Energy (previously Qatar Petroleum)   *Dec '14 - Sep '16*
Doha, Qatar

- Led the setup of an IBM landscape in a backup disaster-recovery data center.
- Maintained over 150 IBM AIX servers hosting ERP (Enterprise Resource Planning) software, including SAP.
- Coordinated with network, storage, and software development teams.

Research Intern | Bell Labs Dublin   *Oct - Dec '14*
Dublin, Ireland

- Created an algorithm to pre-empt the loss of data at telecom data centers caused by unfavorable weather. The algorithm uses hourly weather updates and displays color-coded status on a Google Maps interface.
- Used Model-View-Controller and Observer software patterns to design the system.

Intern | Qatar Energy   *Jun - Aug '13*
Doha, Qatar

- Rotated IT subdivisions and performed 1-2 week-long projects.
- Created a locally customized map using Google Maps API in JavaScript for the GIS (geographic information system) team.
- Created flowcharts for company procedures and wrote technical documentation.

Teaching

Teaching Assistant | University of Colorado Boulder   *Jun - Jul '21*
Boulder, Colorado

Taught weekly practical sessions, held weekly office hours, and guided students in Human-Computer Interaction principles for the Fundamentals of Human-Computer Interaction course (CSCI 3002).

Teaching Assistant (full-time) | Qatar University   *Jan '18 - Jun '20*
Doha, Qatar

Taught weekly programming sessions, created assessment materials, graded assignments, and provided supplementary tutorial sessions for computer science courses:
- Computer Programming (C++ course for engineering students)
- Introduction to Computer Science (for non-engineering students)
- Object-Oriented Programming
- Software Engineering
- Game Design and Development

PUBLICATIONS

Bell, F., **Al-Naimi, L.**, McQuaid, E., & Alistar, M. (2022). Designing with Alganyl. *Proceedings of the Sixteenth International Conference on Tangible, Embedded, and Embodied Interaction.* DOI: (Daejeon, Republic of Korea Feb 13-16, 2022).   *Feb '22*

Halabi, O., Bahameish, M. A., **Al-Naimi, L. T.**, & Al-Kaabi, A. K. (2019). Response Times for Auditory and Vibrotactile Directional Cues in Different Immersive Displays. *International Journal of Human-Computer Interaction*, *35*(17), 1578-1585. DOI: https://doi.org/10.1080/10447318.2018.1555743   *Oct '19*

Arkonac, S. E., Frazer, J., Horgan, R. J., Kracewicz, A., & **Al-Naimi, L.** (2017). ParentCircle: Helping Single Parents Build a Support Network. In *Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems* (pp. 26-32). DOI: https://doi.org/10.1145/3027063.3049271   *May '17*

Halabi, O., Hameish, M. B., **Al-Naimi, L.**, & Al-Kaabi, A. (2014). A study on the design and effectiveness of tactile feedback in driving simulator. In *2014 IEEE/ACS 11th International Conference on Computer Systems and Applications (AICCSA)* (pp. 742-746). IEEE. DOI: https://doi.org/10.1109/AICCSA.2014.7073274   *Nov '14*

Halabi, O., Hameish, M. B., **Al-Naimi, L.**, & Al-Kaabi, A. (2014, November). Optimum design of haptic seat for driving simulator. In *Proceedings of the 20th ACM Symposium on Virtual Reality Software and Technology* (pp. 233-234). DOI: https://doi.org/10.1145/2671015.2671134   *Nov '14*

SKILLS

Technical	Python, C#, Java, Javascript, C++, Unity3D, bash scripting, Jupyter notebook
User experience	User-centered design, A/B testing, think-aloud, prototyping, conducting interviews
Language	English (fluent), Arabic (fluent), Spanish (beginner)

PROJECTS

Aquarium of Morality: a virtual reality experience
Nov - Dec '20

Developed a virtual reality game in Unity 3D with Oculus Quest where I present players with situations that prompt simple good or bad actions. Actions have a direct effect on an aquarium in the player's house.

Wearable for people with bipolar disorder
Feb - Mar '17

Created a prototype of a wearable wristband for mood recording of people with bipolar disorder based on heart rate readings and a mood prompt dial using various prototyping techniques and Arduino programming.

Mobile news consumption qualitative study
Dec '16 - Jan '18

Conducted a qualitative study on the situations that prompt people to consume news on their mobile devices rather than traditional news sources.

PvP: an app for gamers
Jul '13 - Dec '13

Co-developed a mobile platform for video gamers to share opinions on games, get updates on local gaming events, and post on the second-hand marketplace for games. The project won second place at the Startup Weekend competition in Doha, Qatar.

Haptic feedback for 3D models of museum artifacts
Oct '13 - Jul '13

Co-developed a system that uses Microsoft Kinect depth sensors and a haptic feedback device to simulate the texture of 3D models of museum artifacts.

GRANTS & SCHOLARSHIPS

Engineering Excellence Fund
Dec '20

$3000 awarded by the University of Colorado Boulder for phage therapy research using bioinformatics.

Qatar University Graduate Scholarship (PhD)
Jun '20

Tuition and cost of living awarded by Qatar University for a 4-year PhD program. Awarded to high-achieving graduates showing research and teaching interests.

Qatar University Graduate Scholarship (MSc)
Aug '16

Tuition and cost of living awarded by Qatar University for an MSc program at a competitive university.

Undergraduate Research Experience Program (UREP) Grant
Sep '13

$4000 awarded by Qatar Foundation for research on the effectiveness of vibrotactile feedback in driving seats.

ACADEMIC SERVICE

Reviewer | ACM DIS 2021   *Mar '21*

Reviewer | ISWC 2021   *Jul '21*

HOBBIES AND INTERESTS

Traveling   I enjoy traveling solo internationally. I have visited 20 countries so far.
Climbing   Bouldering and top-rope anywhere I can find a climbing gym.
Gaming   I like role-playing games (RPGs), action RPGs, and video game soundtracks.
Sailing   Enjoyed sailing on a Laser in the Persian Gulf and hope to pick it up in Colorado.