Aimen Gaba

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INTRODUCTION

I am a Graduate Research Assistant at the **Human-Computer Interaction and Data Visualization lab** at UMass Amherst. I am currently working on Natural Language Interfaces (NLIs) and how they can better recognize comparison queries and suggest appropriate visuals for them.

EDUCATION

SEP 2021 - Present	**MS/PhD in Computer Science** University of Massachusetts, Amherst CGPA: 3.65/4.0
AUG 2014 - JUN 2018	**BS in Computer Science** Lahore University of Management Sciences SCGPA: 3.12/4.0, CGPA: 3.0/4.0

WORK EXPERIENCE

JUL 2019 - MAR 2020	**UX/UI Designer** at Tower Technologies (Pvt) Ltd. Constructed user personas and storyboards by conducting user research, formulated the solution with user flow diagrams and brainstorming, built the lo-fi prototypes and wireframes, and eventually hi-fi prototypes iteratively tested by the users. Redesigned the UX/UI of mobile apps and websites for primary schools, colleges, and campus management systems.
FEB 2019 - MAY 2019	**Developer Advocate** at Educative Inc. Designed a course on front-end development in AngularJS, with coding challenges, illustrations, and a final course project to create an interactive to-do list web app. Developed another course which provided users with a step-by-step process of incorporating a real-time Firebase database in their apps, learning the basics of Docker containers during this process. Spearheaded the creation of a course teaching the basics of recursion in Java step-by-step to solve hard coding challenges.
JUL 2018 - JAN 2019	**Management Trainee Officer** at United We REACH Trained HCI interns to conduct extensive user studies, primary as well as secondary through interviews, literature reviews, surveys, and systematic review on previous research. Co-managed a team of 6 talented individuals working on developing and designing a 3D game for primary school children, illustrating the historical sites of Pakistan. Developed an Android application to assist teachers from government schools, allowing them to learn and enhance their English reading, writing and listening skills.
SEP 2017 - DEC 2018	**Teaching Assistant** at Lahore University of Management Sciences. Led the course staff as the Teaching Assistant for **Computer Organization and Assembly Language (CS320)**. Designed and evaluated final course project, assignments and quizzes using Assembly language, C++, and Proteus.

Projects

Aug 2021 - Present	**Comparison Utterances for NLIs**
	A collaborative project with **Tableau** and **Adobe** studying the characteristics of comparison utterances and looking into how they can be better understood by Natural Language Interfaces such as *AskData, Tableau* in order to understand the users' intent better and recommend visualizations accordingly.

Jul 2019 - Jan 2020	**Project KHOJ**
	Evaluating the effectiveness of a **3D serious game** to educate and teach children about environmental preservation, climate change, civic values and empathy. The game was built in **Unity3D**, based on an exhaustive primary and secondary research, participatory design, story-boarding, wire-framing, tested through an iterative user testing process in order to log behavioral changes.

Jan 2018 - May 2018	**Raabta: AAC for Special Children**
	A tool to explore context-aware augmented and alternative communication (AAC) systems for children with intellectual disabilities, with a primary focus on Autism and Cerebral Palsy. Thorough research on previous studies, interviews and focus groups were carried out to understand the needs of special children, speech therapists, and teachers. The effectiveness of the tool was evaluated through questionnaire and informal interviews.

Jan 2017 - Jun 2017	**A Day with Chip**
	Evaluated the effectiveness of an experientially designed interactive story-telling game to instill civic and moral values in children, as part of the course **Topics in Interactive Computing**. Results were obtained through a between subject evaluation procedure, collecting subjective as well as objective data from a one-time evaluation study.

Sep 2016 - Dec 2016	**BloodHub: Connecting Donors to Patients**
	Designed and developed an **Android application** to connect blood donors to patients in Pakistan. The application implemented an optimum working platform developed through an in-depth analysis of user study, using the design process for analysis, prototyping, testing, and implementation.

Skills

Languages:	C++, Python, Java, Haskell, mysql, html, css, xml, AngularJS, LaTeX
Tools:	Android Studio, Invision Studio, Proto.io, Adobe Photoshop, Unity3D

Awards and Extracurricular Activities

Oct 2021	**Student Volunteer**, *IEEE VIS Virtual Conference*
Sept 2021 - Present	**CSWomen Social Events Coordinator**, *UMass Amherst*
Sept 2021	**$4000 CICS PhD Scholarship**, *UMass Amherst*
Summer 2017	**Teacher for SATs**, *The Citizens Foundation*
Summer 2016	**Teacher for Scratch**, *Altaf Mehmood Foundation, PROJECT SMILE*
2015-2018	**Basketball & Table Tennis** team member, Lahore University of Management *Sciences*
2015-2018	**Active Medical First Respondent** - Certified EMS training,
2012-2014	**100% Academic Scholarship**, *Lahore Grammar School*
2012	**Academic Excellence Award** for students with an outstanding result, *Bloomfield Hall School*