**EDUCATION**

*KAUST (King Abdullah University for Science and Technology) Thuwal, KSA*

**Masters in Computer Science Anticipated Dec 2024**

* Relevant courses*: Computer Graphics, Data Analytics, Machine Learning*

*University of Rochester Rochester, NY*

**Bachelor of Science in Computer Science | Minor in Digital Media Studies May 2023**

* *GPA: 3.51;* Relevant courses*: Machine Vision, Intro to A.I., AR/VR Interaction Design, Intro to HCI*

**CAREER SYNOPSES**

* **Video Game Development**: Experience in 3D modeling and video game development, utilizing Unreal Engine and Unity to create detailed virtual worlds and gameplay experiences.
* **Creative Technical Artist**: Utilizing coding skills to animate models and simulate, and crafting shaders and developing a *with* photorealistic and toon-shading raytracer from scratch with WGSL.
* **User Research & Product Design**: Proficient in UI/UX design and prototyping across software (web, mobile, XR) and hardware projects, driven by focused user research and continuous usability testing.
* **Web & App Development**: Skilled in full-stack web & iOS app development, applying user-research for user-centric solutions.
* **Adaptive Leader**: Proven leadership in diverse environments, guiding teams to innovate and adapt to technological shifts.
* **Global Perspective**: Brings a diverse international outlook to projects, merging cultural insights with inclusive design.

**PROJECTS**

**Directed Research, Nanovisualization Research Group, KAUST Jan 2024 – Present**

* Converting functionality of an existing OpenGL application to WebGPU, allowing an automatic camera animation as part of a molecular biology visualization system to create documentary-style videos.

**Teaching Assistant, University of Rochester Aug 2021 – May 2023**

* Video Game Development class (Spring 2023), supporting students as they develop games in Unreal Engine.
* iOS Mobile App Development class (Fall 2021), helped students as they developed iOSapps in Swift.

**Media Tech Intern, NBCUniversal,** *Los Angeles, CA* **June 2022 – Aug 2022**

* Assisted in enhancement requests, quality assurance testing, user acceptance testing, and rollout of features.

**Tech and Product Intern, Millie Group,** *New York, NY* **May 2021 – Aug 2021**

* Finalized the features of Millie’s internal website through user research and designed the UI/UX via Figma.
* Developed a PERN Stack (PostgreSQL, Express, React, NodeJS) app, and managed the database through PostgreSQL & AWS.

**IBM Accelerate Software Apprenticeship, IBM,** *Virtual*  **May 2021 – July 2021**

* Enhanced the technical and foundational skills needed to succeed in the software development industry.

**PROJECTS**

**WebGPU Raytracer Nov 2023**

*Raytracer program implemented using WebGPU Shading Language, with photorealistic and toon-shading rendering.*

* Implemented glossy reflection, environment mapping, antialiasing, soft shadows, and motion blur.

**Boppity-Bop Lofi Nov 2022 - Jan 2023**

*Audio visualizer website, with a relaxing window view (buildings, trees, clouds) that animates to Lo-fi music.*

* Developed using React Three Fiber to embed and animate the 3D models designed in Blender on a webpage.

**Phobigone Aug 2022 - Dec 2022**

*VR game application to help users overcome their phobias (fear of the dark, heights, small spaces).*

* Designed a scene in *Unity* depicting a realistic cityscape with 3D building, animated objects, and collectable items.

**BalanceBuddy Jan 2022 - May 2022**

*Website (prototype) to balance between students’ schoolwork & internship search process through daily tasks & progress dashboard.*

* Conducted user research, designed prototypes in Figma, & performed usability testing for the working prototype.
* Developed the back-end of the webpage and Chrome extension using React, and set up a MongoDB database.

**Light Up** **Dec 2020 - Jan 2021**

*An iOS app for brainstorming ideas; it displays random words and has the option to write ideas in "sticky notes"****.***

* Developed using Swift, managed the database with CoreData, published to the App Store and localized in Arabic and English.

**EXTRACURRICULAR ACTIVITIES**

**ShenTech Entreprenuership Bootcamp, InnoX Academy,** *Shenzhen, China.*  **Jan 2024**

* Recognized as a top project; a shoe-cleaning device, designed by conducting user research, prototyping, and market analysis.

**Student Volunteer, SIGGRAPH Asia 2022,** *Daegu, South Korea* **Dec 2022**

* Supported the conference’s events like the Computer Animation Festival & Emerging Technologies exhibition.

**Marketing & Design Team Lead, DandyHacks Hackathon 2022,** *Rochester, USA* **Mar 2022 – Nov 2022**

* Lead a team of 4 to design and market publicized content, and utilize Airtable to keep track of tasks and goal.
* Increased participation by 60% (150 total) and project submissions by %277 (25 total) from the previous year.

**SKILLS**

* Python, C, C++. C#, JavaScript, Java, Swift, React, SQL, R, WGSL, WebGPU, OpenGL
* Unreal Engine, Unity, Blender, Figma, Adobe Illustrator, Adobe Premiere Pro
* Adaptability, creativity, problem-solving, leadership
* Native, Arabic; Fluent, English