Semaa Amin

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TECHNICAL SKILLS

Languages, Libraries & Tools: C, C++, C#, Java, Python, JavasScript, HTML, CSS, Kotlin, Keras, TensorFlow, Roboflow
Mobile & Web Applications: React.js., PHP, ES6, Node.js, Express.js, Bootstrap, JSON, JQuery, Kotlin, Android Studio, VS Code
Databases: MySQL, NoSQL, MongoDB, Redis, CouchDB, Lucidchart
XR, AR, VR, MR development: Unity, Unreal Engine, Blender
Productivity: Notion, Google Suite, MS Office, Jira, Smartsheets, MS Project, Confluence, Github, Arena

EXPERIENCE

GAF Energy, San Jose, California   July 2022 - present
Technical Program Manager, Engineer II
- **Project and Program Management –** Utilize project, program and product management skills, including the ability to develop and maintain detailed project schedules, track progress, identify & mitigate risks, & drive decision-making to keep programs on track.
- **Developed two VR applications –**
  - [VR Roof and Home Customization Experience](#): developing sales tool to allow homeowners to visualise solar/non-solar roofing options
  - [VR Roof Installation Training Experience](#): Provides an immersive training environment for installers.
- **Data Analysis & Visualization –** Designed a Tableau dashboard for manufacturing data, reducing analytics time by 85%.
- **Stakeholder Communication –** Interact comfortably & efficiently with senior management & executive leadership team, highlighting risks & providing recommendations to support product-level decisions.

SAP, Remote, USA   August 2022 - March 2023
Mixed Reality Developer
- **3D Experiences Design & Builds –** in VR, AR, MR which integrate into SAP's Innovation & Pioneering team's emerging projects
- **Prototyping in XR -** from imagination to completion, new and practical use cases for emerging technology in business applications with an eye toward intuitive usability and feel
- **XR Digital Twin -** collaborated on a XR digital twin immersive and interactive product with teammates from across the globe
- **Architect efficient and reusable systems –** drives complex AR/VR applications
- **Lead design and implementation –** of playful and creative projects for Experiences in AR, VR and MR
- **Lead collaboration –** with multi-functional teams to achieve compelling experiences. Engage with Engineering, Research, Design, UX Research and Data Science teams to understand and apply findings from user studies, experiments/testing and production metrics

Northeastern University, San Jose, CA   January 2021 - May 2022
Graduate Student Ambassador
- **Event Planning –** improved Northeastern University student experience by planning 12 events in 12 months for the San Francisco and Silicon Valley campuses as part of a group of 4 high-calibre students
- **Content Creation –** Increased community engagement & delivered engaging content about events, productivity, computer science & other news

ACDS, Alberta, Canada   March 2019 - April 2020
Energy Efficiency Coordinator
- **Energy Efficiency Education –** created an online course, website, workshops and a social media campaign
- **Front-End Web Development –** built an online energy savings tool that allows users to accurately calculate home and business energy savings by switching to more efficient appliances

EDUCATION

Masters of Science in Computer Science   May 2022
Northeastern University, San Jose, CA, USA
Related Coursework: Mixed Reality (XR, AR, VR, MR), Fundamentals of Software Engineering, Database Management Systems, Web Development, Data Structures & Algorithms, Mobile Application Development, Fundamentals of Computer Networking, Intensive Foundations of Computer Science, Discrete Structures Object Oriented Design, Computer Systems

Bachelor of Science in Energy Science & Sustainability   June 2018
University of Calgary, Calgary, Alberta, Canada
Related Coursework: Fuel Cells, Nuclear Energy, Solar Power, Geothermal Energy, Environment & Sustainability, HTML & CSS, HTML5 and CSS3 with jQuery, Javascript and the DOM, Advanced Javascript

Bachelor of Arts in French Language & Literature   June 2018
University of Calgary, Calgary, Alberta, Canada
Focus: French for Business Affairs, 18th & 19th Century French Literature, Grammar, Writing, Renaissance & Age of Enlightenment Philosophy

Quantic School of Business - Executive MBA   July 2023
Related Coursework: Markets & Economies, Data & Decisions, Accounting, Supply Chain & Operations, Strategy, Marketing & Pricing

PROJECTS

[NU FindAR – AR Indoor Navigation App for Northeastern University's San Jose Campus](#)
Northeastern University, San Jose, CA
- Designed and developed an augmented reality (AR) application to enhance object localisation and navigation using Unity and ARKit
- Helped students find their classes faster by scanning a QR code at the elevator door, which guides them directly to their class
- Created custom UI and intuitive design elements to ensure a seamless and user-friendly experience
- Implemented algorithms to accurately detect and navigate to target locations in a dynamic environment.
- Unity, C#, ARKit, augmented reality, object detection algorithms, UI/UX design, QR code integration, web hosting

[Eye-RecAIcle – AI-Powered Recycling Sorter](#)
Northeastern University, San Jose, CA
- Developed an AI-powered system to improve waste sorting and recycling processes by accurately classifying recyclable materials.
- Integrated machine learning models to identify and sort waste based on material type, enhancing recycling efficiency.
- Created a custom user interface and intuitive design to display real-time sorting feedback and material analysis.
- Implemented a camera-based scanning feature that allows users to classify items by simply scanning them.
- Python, TensorFlow, Keras, computer vision, machine learning, UI/UX design

[Search and Rescue (SAR) Simulation using Algorithms and Machine Learning](#)
Northeastern University, San Jose, CA
- Built a remote mountain SAR animated simulation using Unity using different algorithms to find the fastest path to lost people
- Coupled the simulation with Machine Learning, whereby the model was trained to accurately detect images of people
- Unity, C#, algorithms, machine learning, Roboflow

LANGUAGES

English, French (professional working fluency), Malaysian (professional working fluency), Spanish, German, Italian, Turkish & Arabic (all basic fluency)