

Bayan Mashat

Software Engineer

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SKILLS

Programming Languages: Python, C++, C#, HTML, CSS, Javascript
Data Science: pandas, gensim, spacy, jupyter notebook, neo4j
Game Engines: Unity3D, Ink
Misc.: software documentation, game design & development, data cleaning, data analysis

ACTIVITIES

UC Davis Game Development & Art club – Co-president
2017-2019

Organized weekly meetings, game jams, and workshops & connected professors with students to develop games for research or educational purposes.

Computer Science For Kids (CS4K) –Volunteer
2015

Taught coding and making games using Scratch MIT to elementary school kids in the Davis/Woodland area.

Manara Research – Co-Founder
2013-2016
Co-founded a non-profit to prepare pre-college Arab students to participate in science fairs.

EDUCATION

UNIVERSITY OF CALIFORNIA, DAVIS

June 2019
B.S in Computer Science.

INTERESTS

Games, data, AI, emotions, stories, education, mental health, creative writing, & ballroom dancing.

EXPERIENCE

Gallium Artistic Services | Team Proxi

Berkeley, CA

Aug 2018 – Sep 2019

SOFTWARE ENGINEERING INTERN – Data Science

- Built classifiers in Python to identify emotions expressed in text strings to allow the game to understand the emotional state of a player
- Scraped, cleaned up, and analyzed text online interviews of Will Wright (the designer of SimCity) in Jupyter notebooks
- Wrote scripts in Python to connect with server-side API's to split Will Wright texts into 6 categorized concepts (activities, places, things, persons, moods, and times) defined in the game model as "memories"
- Built a graph database in Neo4j to create, store, and recall memories using Cypher queries
- Iteratively designed Proxi-to-Player conversation to create novel conversational gameplay
- Led team efforts to select 10 historical characters recognized in Asia, Europe, and the US to support international game release and coordinated with historians to create backstories

Ranam Company

Boston, MA (remote work)

Jun 2017 – Feb 2018

SOFTWARE ENGINEERING INTERN – Game Development

- Structured and implemented the user interface using C# in Unity3D of a mobile game application, Ranam, to teach how to play songs in Middle Eastern instruments
- Implemented data manager and analytics system and connected it to Firebase
- Implemented the Arabic localization text
- Conducted continuous quality assurance testing for MIDI song files in the app

University of California at Davis

Davis, CA

Mar 2017 – Mar 2019

PROJECT LEAD

- Designed the concept of a 9-level educational top-down 2D role-playing video game in Unity3D to be used as supplementary assignments for the undergraduate course "Introduction to Research"
- Led a team of 8 students (programmers, artists, writers, and composer) and guided game development to align with the course objectives
- Served as a liaison between course designer (Prof. Angelique Louie) and the team, shipping the game online in a web build, in less than 10 months, offered in 9 UC campuses for 5 years, serving 300+ students

RESEARCH INTERN AT BETA LAB

Oct 2015 - Mar 2017

- Designed tools to support researching how young students learn and develop through making
- Mentored students on how to use maker tools like laser cutters and 3D printers

PROJECTS

e{du}motion [Web App & Research Paper] 2017

Web app for tracking emotions, developed in HackDavis'17 and resulted in a published study about using mobile technology to understand emotion regulation in academic performance with Professor Naraine Yeghian in D.I.C.E lab.

Shadow Pan [Game] 2016

An expressive video game created using Scratch, about solving mini mental health problem through interactive conversations with animation characters. Showcased in UC Davis Annual undergraduate research and creative projects conference'17.

GOOPLAY [Game & Research Project – 1st place winner in Intel ISEF] 2010-2011

Designed & programmed an educational video game in Scratch for researching the effectiveness of using games for improving web-searching skills for children.

