

ABDULRAHMAN ALFAYAD

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TECHNICAL

Proficient: Node.js, JavaScript, Python, C++

Familiar: Objective-C, Java, C, SML

VISUAL DESIGN

Proficient: HTML, CSS, Figma, Sketch

Familiar: Photoshop, Proto.io

LAB

Molecular Biology: DNA and RNA isolation & purification, SDS- PAGE/Agarose gel electrophoresis, PCR

Cellular Tissue: Cell culturing

PUBLICATIONS

Garimella, Venkata Rama Kiran, Abdulrahman Alfayad, and Ingmar Weber. "Social Media Image Analysis for Public Health." Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems. ACM, 2016.

AWARDS

Finals GameQode Game Jam - 2021

2nd Place CMUQ Quick-Startup - 2019

Best Over-All App CMUQ Hackathon - 2018

Best Over-All App CMUQ Hackathon - 2017

Semi-Finalist Qatar Challenge22 - 2017

EXTRACURRICULAR

Sports: Basketball, Running

Clubs: Table Tennis Club, Computing Club

LANGUAGES

Bilingual: English and Arabic

EDUCATION

Carnegie Mellon University | GRADUATED MAY 2018

BS in Computer Science

Minor in Mathematical Sciences & Computational Biology

EXPERIENCE

Malvor | JAN 2020 - PRESENT

Product Lead

- Developed a fully working e-commerce platform using node.js, mongodb, and Semantic-UI
- Managed a team of 6, defined their tasks, conducted daily stand-up & weekly 1-hour meetings to track progress, identify problems, and setup weekly goals
- Worked on executing projects from conception to finished product
- Designed & implemented the schematics and functions of the database
- Worked on creating the deployment pipeline for production
- Designed & developed the frontend from multiple iteration of wireframes and prototypes that I designed using figma
- Researched the market and produced marketing plan, financial projections, budgeting, and break even analysis
- Interviewed 30+ candidates for different type of roles & fields

Qatar Computing Research Institute | OCT - DEC 2019

Software Engineer | Cyber Security Department

- Designed & developed a visualization platform for the Ministry of Interior in Qatar to visualize suspicious activity or infiltration of employees accounts using node.js, mongodb, and Semantic-UI
- Created a graph visualization library in Javascript to visualize the network connections of employees
- Designed & implemented multiple dashboard prototypes using Figma, HTML, CSS, and Javascript

Hamad General Hospital | SEPT 2018 - AUG 2019

Research Assistant & Software Engineer | R&D Department

- Worked on developing a robotic surgery simulator based on the Da Vinci Robot as a training tool for new surgeons using OpenGL and C++
- Co-developed an efficient fast cutting algorithm for tetrahedral volumetric meshes using C++
- Designed and implemented a full surgery training simulation software GUI in C++, in addition to running a study on the feedback queues made by the GUI with surgeons to measure their effectiveness
- Developed a robotic surgery simulator in SOFA Framework to compare it to our inhouse simulator
- Collaborated with doctors from different departments on creating proposals for computational medical projects (Awarded \$27,500 from Hamad Medical Research Center)
- Developed a segmentation plugin for OsiriX that eases the process of generating 3D models from CT scans by defining a region of interest and making a binary mask on it using Objective-C
- Developed a plugin for OsiriX that helps doctors import their own 3D models into it and generate regions of interest on the DICOM images based on the given 3D model contours using Objective-C

Carnegie Mellon University | DEC 2017 - AUG 2018

Research Associate | 'Sequoia' Proof System Analysis Tool

- Researched a semi-general way to translate sequent logic to linear logic using Javascript & SML
- Developed the backend & frontend of a proof system analysis tool in nodejs for logicians that takes in logical calculi rules that are then used to build proof trees based on the logician choice

PROJECTS

Qatar 48 Hour Film Challenge | SEPT 2019

Founder & Organizer

- Organized an event for 200 participants that resulted in 34 teams and 20 films
- Handled advertising, logistics, funding, volunteers, judges, and prizes for the event