Victoria Perizes, MSc

Full-stack developer || Biomedical engineer

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Portfolio
Github Profile
Itch.io

Relevant Projects

A complete list of projects can be found in my portfolio.

Career Compass - *In Development*

Github Repo || Website

Web app that helps you keep a record of every position you apply for, the corresponding company details, and the current status of your application.

Cook Your Kitchen

Github Repo || Website

Recipe finder web app enabled by Edamam's Recipe Search API. Specify ingredients you want to cook with and get back recipes.

Professional Experience

Level Ex

August 2017 - February 2023

At Level Ex I owned expert advisory relationships, interactive narratives, requirements generation, and content creation pipelines for software solutions used by the top 20 medical device and pharmaceutical companies in the world. *Clients included: Auris, Brainlab, GE, J&J, Medtronic, Merck, NASA (TRISH), Novartis, SpaceX, and more.*

Consultant, Biomedical Solutions - Space Medicine (Nov 2022 - Feb 2023)

- Exclusively oversaw space medicine projects with NASA and SpaceX.
- Continued to function as Principal Investigator (PI) while onboarding new team members. Coached new team members on how to make strategic decisions and negotiate with clients.
- Developed documentation for all legacy space medicine projects. This was used as onboarding materials for new hires.

Lead Biomedical Solutions Specialist (May 2022 - Nov 2022)

- PI in our work with the Translational Research Institute for Space Health (TRISH). Lead author of grant. Award amount: $1.1 mil. Responsible for:
  - Project scoping, product roadmap, and medical design of an ultrasound training game for astronauts participating in the Artemis missions.
  - Defining and communicating product requirements to dev team.
  - Collaborating with graphics engineering team to determine best

Skills

Programming Languages
JavaScript, HTML, CSS, C#, Python

Frameworks & Libraries
React, React Query, Node.js, Express, Axios, Bootstrap, JQuery, REST API Architecture

Tools & Platforms
Git, GitHub, Postman, Render.com, Figma, Miro, Agile Dev, Perforce

Databases
MongoDB + Mongoose

Game Engines
Unity 3D

Certifications

The Complete 2023 Web Development Bootcamp (Nov 2023)
Issued by Udemy, Instructor: Dr. Angela Yu

Shader Graph for Beginners (April 2023)
Issued by Udemy, Instructor: Penny De Byl

Unity Essentials Pathway (April 2022)
Issued by Unity Technologies

Education

University of Illinois at Chicago (UIC)
MSc, Biomedical Engineering -

approach for rendering computationally generated ultrasound images to support game play.

- Co-PI working with SpaceX, KBR and TRISH, creating a just in time guide instructing commercial crew on ultrasound image acquisition - supporting SpaceX's Polaris Dawn mission.
  - Responsible for product vision and features. Led team through entire product lifecycle.
- Regularly met with clients to review product features and design solutions. Responsible for managing client input and expectations.
  - Regularly presented progress, blockers, and successes to internal and external stakeholders, including executives.
  - Defined sprint goals and milestones with dev team.
  - Ensured medical credibility throughout product lifecycle.
- Delivered cloud based, SaaS solutions to Brainlab (parent company) to improve product visibility across their spine surgery and radiation oncology markets.

Senior Biomedical Solutions Specialist (Oct 2019 - May 2022)

- Co-PI in our first project funded by TRISH. Co-authored grant: Award amount: $1.5 mil. Led the biomedical research effort and managed a team of 4 biomedical solutions specialists to support the development of the Virtual Human Simulator (VHS) platform.
  - Led team through entire product lifecycle.
  - Collaborated with leadership to define product vision and roadmap.
  - Worked with graphics engineering team to develop virtual ultrasound tech stack
  - Coordinated and conducted user interviews and playtests.
  - Designed a data driven visualizer that visualized aggregated space medicine data based on peer-reviewed publications.
- Regularly collaborated with medical experts to ensure credibility of industry sponsored games and experiences.

Biomedical Solutions Specialist (Aug 2017 - Oct 2019)

- Developed algorithms characterizing specific behaviors of biologic systems. Algorithms were used as the basis for game mechanics in industry sponsored content.
  - Modeled the relationship between lung mechanics and gas transport.
  - Modeled the reversal of neuromuscular blockades used in anesthesiology.
  - Worked with software engineers to implement algorithms and ensure outputs were medically credible.
- Led and was responsible for biomedical research and strategic oversight for Airway Ex and Pulm Ex.
- Conducted user research and playtests; responsible for gaining insights into user needs and market gaps for Airway Ex, Pulm Ex, and Gastro Ex.

Shirley Ryan Ability Lab, Chicago, IL — Graduate Researcher

August 2016 - June 2017

- Led the design of the second generation of the ExoNET (previously

Concentrations in Biomechanics and Neural engineering

BSc, Kinesiology - Concentration in Biomechanics

Awards

Moxie Award Winner (2022)
Presented by BuiltIn for outstanding contributions to the tech industry

Interests

Olympic weightlifting, football (soccer), hiking & bouldering, sci-fi novels, cooking, music

MARIONET) - a passive, torque assisting exoskeleton - to aid in the rehabilitative process for recovering stroke patients.

- Developed mathematical models and algorithms to empirically optimize ExoNET parameters with the goal of achieving any desired torque profile for single and two-joint actuation using the MATLAB Optimization toolbox.

Publication: A Theoretical Framework for a Network of Elastic Elements Generating Arbitrary Torque Fields. *BioRob. IEEE, 2020 pp. 286-291.*