Victoria Perizes, MSc

Software 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.

Cook Your Kitchen ⇗

Recipe finder web app enabled by Edamam's Recipe Search API. Have random ingredients in your kitchen that you want to cook? Search for those ingredients and get recipes.

Hosted on render.

JavaScript · HTML · CSS · Node.js · Express · JQuery · Bootstrap

Professional Experience

Level Ex

August 2017 - February 2023

At Level Ex I deeply collaborated with our team of software engineers, game designers, artists, UI/UX designers and user researchers (UR) to develop engaging experiences rooted in medical credibility. *Clients included: Auris, Brainlab, GE, J&J, Medtronic, Merck, NASA (TRISH), Novartis, and SpaceX.*

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 replacement.
- Developed roadmap and timeline to onboard new hire.
- Developed documentation for all legacy projects that current space medicine projects were built off of. This was used for all new hires brought onto space medicine projects.
- Provided strategic input to team. Coached new hire on how to make strategic decisions and negotiate with clients.

Lead Biomedical Solutions Specialist (May 2022 - Nov 2022)

- Principal Investigator (PI) in our work with the Translational Research Institute for Space Health (TRISH). Lead author of grant. Award amount: $1.1 mil.

Skills

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

Frameworks & Libraries
React, Node.js, Express, Bootstrap, JQuery, Passport.js

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

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

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/features to dev team.

- 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 meet 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 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.
  - Designed conference, sales enablement, and training experiences highlighting market differentiators and competitive advantage.
  - Collaborated with UR/UX teams to better understand end users and define product needs based on user personas.

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.
  - 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 clinical KOLs and medical experts to ensure medical credibility of industry sponsored games and experiences.

Biomedical Solutions Specialist (Aug 2017 - Oct 2019)

- Developed algorithms to characterize specific behaviors of biologic systems. These 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.
- Established processes and pipelines to increase interdisciplinary team efficacy particularly around playtesting and user feedback.

Education

University of Illinois at Chicago (UIC)
MSc, Biomedical Engineering - 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), bouldering, sci-fi novels, cooking, music

- Optimized processes and pipelines to decrease cross-disciplinary friction by aligning team goals with sprint cadence.
- Led and was responsible for biomedical research, medical content authoring, and strategic oversight for Airway Ex and Pulm Ex - the first professional video games for anesthesiologists and pulmonologist, respectively.
- Reviewed peer reviewed research and publications to translate medical best practices to our games.
- 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

- Lead the design of the second generation of the ExoNET (previously MARIONET) - a passive, torque assisting exoskeleton - to aid in the rehabilitative process for recovering stroke patients.
- Developed mathematical models and algorithms to empirically optimize the adjustable parameters of the ExoNET 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.*