

Sara Lim Sampson

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TECHNICAL SKILLS

Languages: Ruby, Elixir, JavaScript, SQL
Web Development: Ruby on Rails, Node.js, Express, Phoenix, GraphQL, REST APIs, Vue, React, Redux, HTML, CSS
Databases: RDBMS — PostgreSQL, SQLite3; NoSQL — MongoDB
Tools: Git, Postman, Visual Studio Code, Jira

WORK EXPERIENCE

Software Engineer, II

July 2020 - Present

Synopsys, Inc — Tinfoil Security

- Designed and implemented GraphQL APIs in Elixir/Phoenix using Absinthe
- Contributed to new feature development and bug fixes for the Tinfoil website and API dynamic security testing applications
- Skills: *backend* — Elixir/Phoenix, Ruby on Rails; *frontend* — Vue, Absinthe/GraphQL, HTML5, CSS3, Sass, PostgreSQL

Staff Research Associate

2017 – 2019

University of California, San Francisco — Orthopedic Bioengineering

- Designed and executed studies examining the role of the cartilage endplate in intervertebral disc health and back pain; published findings in peer-reviewed scientific journals (lead author of 1 article, co-authored 2 articles and 3 abstracts)
 - [Sampson SL](#), Sylvia M, et al. Effects of dynamic loading on solute transport through the human CEP. *J Biomech.* 2019. PMID: [30554819](#).
 - Wong J, [Sampson SL](#), et al. Nutrient supply & nucleus pulposus cell function. *Osteoarthritis & Cartilage.* 2019. PMID: [30721733](#).
- Improved reproducibility and efficiency of RNA ISH analysis by writing ImageJ scripts to automate 3D image processing
- Successfully developed and validated several new lab methods, including a testing protocol used to determine the rate of nutrient transport through human cartilage under static or cyclic loading with automated fluid loss adjustments

PERSONAL PROJECTS

Portfolio website made with jQuery, HTML5, and CSS3 — *see for further project details*

sarasampson.com

RESONANCE — *An ambient noise mixer for improving productivity*

[Live](#) | [GitHub](#)

- Independently built website from scratch using vanilla JavaScript DOM manipulation, Webpack, npm, HTML5, and Sass
- Optimized site performance on mobile and desktop devices through testing with Chrome DevTools and implementing lazy loading; obtained a 100% Lighthouse score for performance, best practices, and SEO
- Leveraged CSS media queries and grid layouts to create a fully responsive design

SCRIBBLED — *An online books library inspired by Scribd*

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- Skills: *backend* — Ruby on Rails, PostgreSQL, BCrypt, Heroku; *frontend* — React, Redux, AJAX, CSS3
- Implemented frontend and backend (BCrypt, React Router) authentication measures, allowing only logged-in users to access and make changes to their own reading lists

CO-HABIT — *An all-in-one housemates web application built with the MERN stack*

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- Skills: *backend* — Node.js, npm, MongoDB, Express, JWT, Heroku; *frontend* — React, Redux, Axios, Sass
- Designed and built an intuitive user interface for housemates to manage chores, split shared bills, and schedule events
- Implemented chores CRUD functionality and automatic assignment logic that ensures evenly distributed workload amongst housemates; leveraged JavaScript promises to fetch household data and store chores data asynchronously

EDUCATION

University of California, Berkeley — B.S. Bioengineering

May 2017

Graduated with Honors from the College of Engineering — GPA: **3.75**

- Recognitions:** Dean's Honor List, Bioengineering Honor Society, Cal Alumni Leadership Award, 2nd — Big Ideas in Global Health
- Activities:** Research Assistant at UCSF, Biodesign Intern, Statistics Lab Teaching Assistant, Artists in Resonance A Cappella

App Academy — Full-Stack Software Engineering

April 2020