Stefan Lazarevic

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SKILLS

Software: Ruby, JavaScript, Rails, Express, Node, Python, MongoDB, SQL, Git, AWS, MATLAB, HTML, CSS
Biomedical: Clinical informatics, experiment design, data analytics, validation testing, injury biomechanics, FEA

PROJECTS

Reps 'N' Recipes - A tool for tracking and visualizing fitness and nutrition progress. GitHub

- Led the optimization of a **MongoDB/Mongoose/Express** backend and a **React/Redux** frontend, reducing server latency by 45% and enhancing user engagement with real-time fitness and nutritional insights.
- Integrated Spoonacular API to provide seamless access to a vast nutritional database of 700k+ items, while leveraging **AWS** S3-powered exercise library to optimize user-centric management and cater to diverse experience levels.
- Collaborated with two skilled engineers employing **Git** and **Scrum** methodologies, rapidly advancing a coherent project to completion in just 10 days, ensuring efficient code integration with minimal merge conflicts.

Fakebook - A social platform allowing user interaction through posts, comments, and reactions. GitHub

- Designed a scalable **RESTful API** with **Rails**, optimizing endpoints for 100+ user interactions/minute with rapid response.
- Employed JBuilder for efficient data serialization and improved data storage/retrieval speeds by 70% with **PostgreSQL**.
- Fortified application with **CSRF** protection, restricting CRUD operations to authenticated users, bolstering data integrity and security.
- Enhanced application scalability by fine-tuning database queries and incorporating advanced caching, achieving a 40% reduction in page load times for improved user experience.

Modular Meals - A personal kitchen assistant that helps users craft the perfect recipe. GitHub

- Developed a user-friendly **JavaScript** platform offering access to 1.7 million customizable recipes, coupled with an advanced filtering mechanism for a tailored culinary experience, increasing user satisfaction and application performance by over 50%.
- Launched real-time recipe modification and nutritional assessment feature with **D3** and the Edamam API, expanding user base by 30%.

WORK EXPERIENCE

Graduate Researcher | Implantable Biosensing Laboratory – ICORD | Vancouver, Canada 04 / 2022 – 04 / 2023

- Conducted a research study investigating the effectiveness of blood-flow restriction training in individuals with incomplete tetraplegia, increasing subject strength and flexibility by an average of 26%.
- Developed data processing scripts in **LabVIEW** and **MATLAB**, set protocols linking physiological metrics with lactate thresholds in elite cyclists; attaining near-100% non-invasive intensity diagnosis in a laboratory setting.

Mechanical Engineer | UBC Biomedical Engineering Student Team | Vancouver, Canada 09 / 2021 – 08 / 2022

- Spearheaded design and development of a posture-correction device using EMG and accelerometer sensors, ranking top-5 nationally.
- Coordinated cross-functional teams for prototype creation in **AutoCAD** and leveraged myography technologies for precise refinement.

Clinical Engineer | Advance Concussion Clinic | Vancouver, Canada 02 / 2021 – 07 / 2021

- Collaborated over an 18-month period in the end-to-end product development of a mobile application, integrating biomedical insights, to empower concussion patients with real-time recovery tracking.
- Empowered 20+ clinicians in pinpointing injury causes and severity, optimizing patient education on personalized recovery strategies.

Mechanical Engineering Intern | Westshore Terminals Ltd. | Delta, Canada 04 / 2019 – 09 / 2019

- Partnered with a team of IT professionals to create a scheduling **iOS** application to assist technicians in regular and thorough inspection and repair of heavy machinery, decreasing equipment downtime twofold over three years.

EDUCATION

Full-Stack Software Engineering Bootcamp | App Academy | San Francisco, CA 05 / 2023 – 09 / 2023

MEng. in Biomedical Engineering | University of British Columbia | Vancouver, Canada 09 / 2021 – 11 / 2022

BASc. in Biomaterials Engineering | University of British Columbia | Vancouver, Canada 09 / 2015 – 05 / 2020