



Mitacs Business Strategy Internship (BSI): Partner Proposal

Metric Design

Organization Name: Metric Design

Project Title: Full Stack Developer for Generative AI Preference Map & Visualization Tools

Estimated Project Term: Greater than 1 year

Positions Available: 1

Please Send Resume/Cover Letter To: Tamara Bowman, Owner/Creative Director, at

metricly@metricdesign.ca

Seeking Applicants in:

Computer Science

Computer Engineering

Electrical Engineering

About Metric Design:

Metric Design is an innovative interior design firm dedicated to crafting exceptional spaces that blend beauty, functionality, and personalized style. Since 2011, Metric has established itself as a leader in residential and commercial design by offering comprehensive interior design, styling, and renovation services tailored specifically to each client's vision. With expertise ranging from detailed renovations, modern basement developments, and sophisticated styling solutions, to custom cabinetry, high-quality finishes, and thoughtfully curated furniture selections, Metric Design consistently delivers exceptional results. Metric Design also excels in creating captivating landscaping designs, extraordinary event experiences, and luxury retreats, ensuring each project is both memorable and impactful.

Complementing Metric Design's success is MetricLy, a technology-driven startup designed to revolutionize the furniture and decor selection process. MetricLy provides an intuitive, user-friendly app where designers and consumers can efficiently source, select, and purchase products online. Supported by a government-funded research grant through Sask Polytechnic, MetricLy's MVP is now launching, promising significant efficiency gains and enhanced procurement experiences for users. With plans to expand across Canada and into the U.S., MetricLy represents Metric Design's commitment to innovation and continuous growth, ensuring both businesses remain at the forefront of design and technology.

Project Description:

This innovation project involves creating an advanced generative AI-powered platform that visualizes consumer preference data for interior design products using dynamic preference maps and visualization tools. The project aims to simplify and significantly enhance the decision-making and procurement process for consumers and interior design professionals.

The core innovation is the seamless integration of generative AI technologies with robust, responsive full-stack development to produce a highly interactive and scalable user interface. This incremental innovation will provide users with real-time, personalized visual insights, surpassing current market capabilities in interior design product selection and visualization.

The Full Stack Developer candidate will be responsible for building and maintaining the end-to-end architecture of the platform. Main tasks include:

Designing, implementing, and maintaining front-end interfaces using modern JavaScript frameworks (e.g., React or Vue.js).



Developing back-end services and APIs in languages such as Go and Python to handle user data, AI-driven visualizations, and secure transactions.

Managing database integration and ensuring optimal data handling and performance.

Collaborating with UX/UI Designers and AI specialists to ensure seamless integration of AI functionalities with front-end visualizations.

Performing continuous testing, debugging, and refining of the software to optimize performance, scalability, and user experience.

Methodologies and techniques will encompass agile software development practices, test-driven development (TDD), continuous integration and continuous deployment (CI/CD), RESTful API design, cloud-based deployments (e.g., AWS, Azure), and robust version control (GIT).

Ultimately, the candidate will play a pivotal role in advancing the technical foundations of the platform, enabling exceptional user interactions and elevating the standards of generative AI applications within the interior design sector.

Skills/Expertise:

Proficiency in Go, Python, JavaScript, and API development.

Experience with relational and graph databases; familiarity with vector databases is a plus.

Hands-on experience with front-end libraries / frameworks.

Familiarity with Git/version control systems.

Experience with Generative AI.