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Dear Sir/Madam,

I'm writing to express my sincere interest in the Full Stack Developer Intern position at Pulsenics. The innovative strides Pulsenics is making in the domain of electrochemical technologies, particularly in its mission to decarbonize energy use on a global scale, resonate deeply with my academic background and professional experiences.

Currently pursuing my Bachelor's of Engineering in Software Engineering at McGill University, I have had extensive exposure to both theoretical knowledge and practical application, spanning from Data Structures & Algorithms to Digital Logic and Model-Based Programming. My recent internship at BeauT as a Software Engineer has fortified my practical understanding of full-stack development. I orchestrated a CMS development using the MERN stack combined with TypeScript and was instrumental in optimizing back-end configurations leading to a 35% improvement in request handling. I am particularly proud of my contribution in integrating TensorFlow and OpenCV to achieve advanced facial recognition capabilities.

My stint as a Data Science Intern at Ambient Intelligence Lab further enhanced my skill set. I efficiently processed 300M+ JSON and CSV files using Python's Pandas, NumPy, and MATLAB, leading data extraction from Elasticsearch with KQL, and successfully developed a real-time algorithm for signal processing. These experiences have honed my expertise in SQL database programming, understanding of enterprise systems, and given me hands-on experience with dynamic languages, in line with the qualifications desired by Pulsenics.

Beyond my formal roles, I've also ventured into side projects like "Cloudnerd" - an ML-based Weather Forecasting Application, and "Shazoom" - a Song lyric recognition app, both of which have further refined my proficiency in React, TypeScript, TensorFlow, and Python, among others. Given my robust background in full-stack development, data science, and machine learning, combined with my passion for commercializing clean technologies, I am eager to bring my skills and enthusiasm to the team at Pulsenics. I am confident that my proactive approach, ability to transform product sketches into working technologies, and my knack for anticipating and resolving issues proactively will align seamlessly with the goals of your esteemed organization.

I would be thrilled to further discuss how I can contribute to the growth of Pulsenics and assist in the development of its next generation of hardware and software products. Thank you for considering my application. I am looking forward to the possibility of joining your team and embarking on this exciting journey.

Warm regards,
Amgad Elgamal