

Justin Charney

✉ justin.charney@gmail.com

🌐 [justin-charney](https://justincharney.com)

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Education

- 2019 – 2024 📖 **B.Eng, McGill University** in Bioengineering.
Capstone project: *Using Deep Learning to Identify High-Risk Tumour Subregions in Soft-Tissue Sarcoma*
CGPA: 3.85

Research Experience

- 5/21 – 9/21 📖 **Undergraduate Researcher**, McGill University.
Advisors: *Dr. Natalie Reznikov & Dr. Marc McKee*.
Award(s): *NSERC USRA*
Investigated the effectiveness of mineral binding and protein crosslinking treatments in toughening teeth with microcracks in enamel. Trained and optimized a convolutional neural network for segmenting dentin, enamel, and microcracks in microCT images. Applied image processing techniques and Bayesian hyperparameter optimization in customizing a U-net architecture. Contributed to the improvement of deep learning models for detecting fine cracks (1-3 pixels in width), surpassing the performance of existing models in Dragonfly ORS image processing software.

Employment History

- 2021 – ⋯ 📖 **Software Developer**. ACS 247 Ltd.
Develop full-stack applications for telehealth clients who use our platform's network service providers of pharmacies, physicians, and care coordinators. Part-time position from Sept - May, full-time otherwise.

Skills

- Coding 📖 Java, PHP, Python, SQL
ML 📖 PyTorch, NumPy, PyTorch Lightning
Databases 📖 MySQL, PostgreSQL, Supabase
Web Dev 📖 HTML, CSS, JavaScript, Node, Svelte

Miscellaneous Experience

Certification

- 2020 📖 **Deep Learning Nanodegree**. Awarded by Udacity.

References

Available on Request