# Austin **Luu**

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*Experienced AI/ML engineer with 2 years in computer vision, data analytics, and predictive modeling. Proficient in data prep, feature engineering, model optimization, aligning business goals with AI/ML strategies, staying updated on emerging tech, and driving innovative projects.*

## Experience

**ViTAA Medical Solutions** | SOFTWARE DEVELOPMENT ENGINEER                *Montreal, QC, Canada* | *Jun. 2022 — Present*

- Implemented the Fully Convolutional Transformer (FCT) for 3D auto-segmentation of abdominal aorta aneurysm landmarks in **PyTorch** leveraging **MONAI** and **NIfTI**, resulting in a 93.84% Dice and 27% time reduction in QA personnel manual adjustments.
- Established comprehensive coding standards and automated unit-testing, incorporating microservice principles, resulting in a 15% improvement in deployment flexibility and resource utilization.

**TOHacks** | DATA ANALYST                *Toronto, ON, Canada* | *Dec. 2021 — Dec. 2022*

- Conducted A/B testing to assess the impact of various design decisions, resulting in a 20% increase in user conversion.
- Leveraged **Python, Seaborn,** and **Pandas** to analyze prior years' user submission data, guiding data-driven design & business decisions, improving user submissions, and increasing registrations by 84% & user engagement by 23%.

**AlphaPoly Packaging** | DATA ANALYST                *Brampton, ON, Canada* | *June 2021 — Oct. 2021*

- Employed **PowerBI** and **Excel** to analyze manufacturing operation data, leading to the redesign of standard operating procedures, with a forecasted 65% reduction in operation downtime.
- Designed comprehensive end-to-end quality testing protocols for all manufacturing processes, resulting in a 31% decrease in Q3 cases.

**Celestica** | PRODUCT DATA ANALYST                *Toronto, ON, Canada* | *May 2019 — June 2021*

- Led Aerospace & Defense cost-saving initiatives, minimizing excess inventory by 20% and expanding the AVL portfolio by 15%, resulting in $1.5M annual savings. Leveraged **Tableau** alongside **PowerBI** and **Excel** for analysis.
- Analyzed a $5+ million customer portfolio utilizing **Tableau, PowerBI,** and **Excel** to uncover demonetized products and assess the effects of commodity price fluctuations.

## Technical Skills

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| **Programming Languages** | Python, MATLAB, R, Octave, SQL, NoSQL, Java, JavaScript |
| **Packages & Frameworks** | Pandas, NumPy, TensorFlow, PyTorch, Scikit-Learn, SciPy, Matplotlib, Seaborn, Jupyter Notebook |
| **Deep Learning** | Convolutional Neural Networks (CNNs), Recurrent Neural Networks (RNNs), Transformers |
| **Natural Language Processing** | NLP, NLU, BERT, GPT-3 |
| **Computer Vision** | OpenCV, Image Recognition, YOLO |

## Projects

**Kabo** | HACK THE NORTH 2020++ ⬚                *2021*

- Engineered an AI-driven Discord bot leveraging **Python, JavaScript,** and **NLP tools** for real-time speech recognition and karaoke simulation with pitch and lyrical accuracy scoring.
- Utilized **Aubio, Numpy, SpeechRecognition,** and **Pydub** libraries for audio analysis, combined with **PythonShell, Node.js,** and **Discord.js** to interface with Discord, enhancing the user experience.

**Vision Motion** | THACKS2 ⬚                *2017*

- Leveraged real-time computer vision using **OpenCV** on mobile devices to track and graph the projectile motion of an object.

## Education & Certifications

**Google** | PROJECT MANAGEMENT SPECIALIZATION                *Virtual* | *2023*

**DeepLearning.AI** | DEEP LEARNING SPECIALIZATION                *Virtual* | *2022*

**Toronto Metropolitan University** | B.ENG MECHATRONICS ENGINEERING                *Toronto, ON, Canada* | *2021*

- GPA: 3.70 | Dean's Honour List | Mechanical Eng. Alumni Award | Robotics Intl. Society of Manufacturing Engineers Award