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*

- Designed a custom UNet in **PyTorch** to perform 3D cardiovascular auto-segmentations, resulting in a 92.84% Dice and 27% time reduction in QA personnel manual adjustments.
- Led project planning and execution for a custom ML/AI infastructure.
- Spearheaded establishment of code standards, improving code velocity, maintainability, and testability resulting in improved resource utilization and development efficiency.
- Developed an automated CI/CD integration pipeline with **AWS** CodeDeploy, EC2, and S3 reducing test execution times by 43%.
- Implemented parallel computing and infrastructure and software architecture overhaul reducing product execution time by 30%.

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

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

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 end-to-end quality testing protocols for all manufacturing processes, resulting in a 31% decrease in quality 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 $5+ million in customer portfolios utilizing **SQL, Tableau,** and **PowerBI** to uncover demonetized products and assess effects of commodity price fluctuations.

Technical Skills

Programming Languages	Python, MATLAB, 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	NLTK, BERT, GPT-3, NLP, NLU
Computer Vision	OpenCV, SimpleCV, YOLO, ResNet-50, U-Net, Image Recognition

Projects

Kabo | HACK THE NORTH 2020++ ⬈ *2021*

- Engineered an AI-driven Discord bot with real-time speech recognition, karaoke simulation, and pitch & lyrical accuracy scoring.
- Developed with **Python** and **JavaScript** using Aubio, SpeechRecognition, Pydub, **PythonShell, Node.js,** and **Discord.js** libraries.

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* | *2024*

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 | Robotics Intl. Society of Manufacturing Engineers Award | Mechanical Eng. Alumni Award