Andriy Drozdyuk

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AI/ML Delivery Consultant | MLOps, Robotics, Controls, Cloud Systems

AI/ML delivery consultant and senior software engineer with 15+ years across production software, applied machine learning, robotics, controls, and research engineering. Current AWS Professional Services AI/ML consultant with prior work at Amazon Robotics, DEKA, and NRC Canada. Strong fit for roles that need practical AI delivery across cloud architecture, production code, MLOps, and physical systems.

FOCUS AREAS

- **AI/ML systems:** computer vision, reinforcement learning, action recognition, semantic segmentation, model evaluation, and dataset quality.
- **MLOps and delivery:** production readiness, CI/CD, model/data pipelines, deployment patterns, and stakeholder translation.
- **Cloud and platform engineering:** AWS customer delivery context, distributed compute, backend systems, infrastructure-aware application design.
- **Robotics and controls:** ROS/ROS2, UR10, RTDE, control loops, OpenAI Gym-style environments, simulator-to-training integration.

EXPERIENCE

Amazon Web Services - Professional Services

Delivery Consultant - AI/ML, Job Level 5 | Oct 2025 - Present | New York City, NY / US

- Deliver customer-facing AI/ML consulting work, translating ambiguous requirements into practical implementation plans and production-ready cloud patterns.
- Advise on MLOps, model deployment, data pipelines, and operational readiness while balancing business goals, technical constraints, and maintainable delivery.

Amazon Robotics

SDE II | 2024 - 2025 | North Reading, MA

- Developed and productionalized machine learning models in an Amazon Robotics environment.
- Worked across model development, production deployment, reliability, and maintainable MLOps practices.

Independent Product Work

Founder / Builder | 2024 - Present | Remote

- Built and maintain Charn (charnapp.com), a live graph-based change-planning tool for senior engineers working through dependency-heavy software changes.
- Built GoodModelBadModel.com, a previously live ML model-comparison service for semantic-segmentation workflows; later sunset hosted service due to infrastructure cost.
- Implemented production web systems using Python, Django, PostgreSQL, Redis, Celery workers, object storage, payments/subscriptions, and CI/CD deployment.

DEKA Research & Development

Machine Learning & Controls Engineer / ML Feature Lead | Jan 2022 - Jan 2024 | Manchester, NH

- Designed and implemented reinforcement-learning and control-system approaches for medical-device and robotic-control problems.
- Led behavior-detection feature work using action-recognition models; achieved 92% accuracy across four activity classes with a 15-frame sliding-window input and 3D convolutional model.
- Fine-tuned deep-learning computer-vision models for medical-device control features, using combined regression/classification losses for partially labeled, repetitive data; achieved 99% combined score.
- Designed semantic-segmentation and object-detection pipelines using ROS bag data, Kubeflow Pipelines, Determined.AI, PyTorch, DVC, and data-labeling workflows.
- Taught Kubeflow and Kubernetes concepts and promoted trunk-based development, CI/CD, and testable ML pipeline practices.

National Research Council Canada

Machine Learning Engineer / Software Engineer | Sep 2009 - Sep 2021 | Ottawa, ON

- Built simulation environments, algorithms, and infrastructure for robotic and reinforcement-learning research, including UR10 robotic-arm work and OpenAI Gym-style physics environments.
- Set up distributed compute resources for reinforcement-learning experiments, including multi-machine Ray/RLlib training workflows.
- Delivered research software and full-stack proof-of-concept systems across Python, Erlang/OTP, Java/Scala, C#, Elasticsearch/Lucene, Django, REST APIs, and JavaScript.
- Led development of an X-ray dose-tracking web application that helped patients understand cumulative radiation exposure and safety thresholds.

Earlier Software Engineering

Adcentricity / Web4You / University of Toronto roles | 2004 - 2009 | Toronto, ON

- Built Django, Drupal/PHP, .NET/C#, SQL, and JavaScript applications for advertising, retail, research, and internal business workflows.

SELECTED PROJECTS AND PUBLIC WORK

- **Chumak:** created an open-source pure Erlang implementation of the ZeroMQ Message Transport Protocol; project later contributed to the ZeroMQ organization.
- **Charn:** built and maintain charnapp.com, a live graph-based change-planning tool for software engineers managing complex refactors, migrations, blockers, and prerequisite discovery.
- **GoodModelBadModel:** built a previously live full-stack ML model-comparison application for semantic segmentation workflows.
- **Technical teaching:** published machine-learning and reinforcement-learning lectures, including Neural ODE and REINFORCE explanations with thousands of views.
- **Publication:** Colin Bellinger, Andriy Drozdyuk, Mark Crowley, Isaac Tamblyn. “Scientific Discovery and the Cost of Measurement - Balancing Information and Cost in Reinforcement Learning.” AAAI Workshop, 2022.

TECHNICAL STACK

Python; Erlang/Elixir; Scala/Java; C/C++; C#; SQL; AWS; Docker; Kubernetes; Kubeflow Pipelines; Determined.AI; DVC; PyTorch; Django; PostgreSQL; Redis; Celery; ROS/ROS2; Linux.

EDUCATION

Carleton University - Graduate research in Computer Science, Machine Learning / Reinforcement Learning.
University of New Brunswick - Master’s in Computer Science, 2018. Focus: machine learning, unsupervised learning, rule mining.
University of Toronto - Honours B.Sc. Computer Science, Minor in Mathematics, 2007.