

Neurolancer Categories & Sub-Categories

1. AI Development & Engineering

(Core technical work in building and deploying AI)

- Machine Learning Development (classification, regression, clustering)
 - Deep Learning Models (CNNs, RNNs, Transformers)
 - Large Language Models (fine-tuning, embeddings, RAG, custom GPTs)
 - Prompt Engineering (chatbots, generative AI, system prompts)
 - Natural Language Processing (text summarization, translation, sentiment analysis)
 - Computer Vision (object detection, OCR, video analysis, AR/VR)
 - Speech AI (speech-to-text, text-to-speech, speaker recognition)
 - Reinforcement Learning (game AI, decision-making systems, robotics)
 - MLOps & AI Infrastructure (deployment pipelines, CI/CD, Docker, Kubernetes)
 - Edge AI & IoT AI (AI for mobile, embedded systems, smart devices)
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2. Data & Model Management

(Everything around datasets, training, and optimizing AI models)

- Data Annotation & Labeling (text, image, audio, video)
- Data Cleaning & Preprocessing (feature engineering, outlier handling)
- Synthetic Data Generation (simulation, GANs, data augmentation)

- Data Visualization & Dashboards (BI tools, custom dashboards)
 - Model Training (supervised, unsupervised, semi-supervised)
 - Model Optimization (pruning, quantization, distillation)
 - Model Monitoring & Evaluation (performance metrics, error analysis)
 - Data Engineering (ETL pipelines, big data frameworks like Spark)
 - MLOps for Data (automated retraining, monitoring pipelines)
 - Cloud AI Setup (AWS Sagemaker, Google Vertex AI, Azure ML)
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3. AI Ethics, Law & Governance

(Responsible AI development, compliance, and regulation)

- Bias & Fairness Audits (dataset bias detection, model bias testing)
 - Privacy-Preserving AI (federated learning, differential privacy)
 - AI Compliance (GDPR, HIPAA, EU AI Act, CCPA audits)
 - Risk Assessment & Safety (AI misuse, red teaming, risk frameworks)
 - AI Governance Frameworks (internal policies, accountability systems)
 - Explainable AI (interpretable models, SHAP, LIME, transparency reports)
 - AI Policy & Strategy Advisory (corporate AI policies, national strategies)
 - Ethical AI Consulting (human oversight, cultural sensitivity in AI)
 - Algorithmic Accountability (impact assessments, transparency standards)
 - Responsible Data Use (data ownership, consent management)
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4. AI Integration & Support

(Helping businesses actually use AI in their workflows)

- Chatbot & Virtual Assistants (customer support, voice assistants)
 - Workflow Automation (CRM, ERP, marketing automation with AI)
 - AI API Integration (OpenAI, Anthropic, Hugging Face, custom APIs)
 - AI in Business Intelligence (AI dashboards, predictive analytics)
 - AI Product Management (scoping features, building roadmaps)
 - AI Training & Workshops (staff training, AI bootcamps, corporate enablement)
 - Customer Support AI (ticket triaging, knowledge base bots)
 - AI Consulting for SMBs (strategy, adoption, feasibility studies)
 - Cloud AI Deployment (AWS, Azure, GCP AI solutions)
 - AI Model Maintenance (bug fixing, retraining, monitoring post-deployment)
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5. Creative & Industry-Specific AI Roles

(Specialized uses of AI in creative industries & verticals)

- AI Content Writing (blogs, ad copy, SEO with AI assistance)
- AI Art & Design (digital art, logo design, concept art, 3D renders)
- AI in Music & Audio (music composition, mixing, podcast editing)
- AI in Video (video generation, VFX, AI-powered editing)
- AI in Gaming (NPCs, procedural content generation, dynamic environments)
- AI in Healthcare (diagnostic support, medical data analysis, patient triage AI)
- AI in Finance (fraud detection, algorithmic trading, risk models)
- AI in Education (personalized learning platforms, tutoring bots)
- AI in Marketing (ad targeting, customer segmentation, campaign optimization)
- AI in Legal & Research (contract analysis, AI legal research assistants)

6. AI Operations in New Markets

(AI applied to emerging fields and frontier technologies)

- Digital Twins & Simulation (smart factories, cities, supply chains)
 - AI for Agriculture (crop monitoring, pest detection, soil health analysis)
 - AI for Climate & Environment (energy optimization, emissions tracking)
 - AI in Logistics (demand forecasting, route optimization, fleet AI)
 - AI Companions & Agents (virtual friends, therapy bots, personal agents)
 - AI in Retail (recommendation engines, dynamic pricing, inventory prediction)
 - AI for Government & Policy (public sector AI use, e-governance)
 - AI in Security & Surveillance (threat detection, anomaly monitoring)
 - AI in Autonomy & Robotics (self-driving systems, drone oversight, robotics vision)
 - AI for Developing Economies (local language AI, low-resource models, community solutions)
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