Diego Cabo

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WORK EXPERIENCE

Bright AI — **San Jose, CA**
Senior Software Engineer — *April 2025 – Present*

- Architected a portable edge computing system that streamlines drone inspection workflows for electrical infrastructure, enabling operators to process imagery and generate AI-powered defect reports directly in the field without cloud connectivity.
- Developed containerized edge-API middleware that coordinates AI inference workflows and UI interactions to automate drone inspection reports, managing the entire data pipeline from image imports to report generation.
- Collaborated on AI model development and deployment pipeline architecture for computer vision applications, implementing training workflows for automated defect detection and multi-angle shot classification that achieved production-level accuracy.
- Customized kernel and OS image to ensure reliable edge performance and compatibility with custom hardware.
- Worked directly with the client and drone operators to iteratively improve the system based on field feedback, refining the system to meet practical operational requirements.

ArcBest Technologies — **Fort Smith, AR**
Robotics Engineer, Perception — *January 2022 – April 2025*

- Led a team of 5 engineers as technical lead for perception systems, mentoring team members and driving technical decisions while architecting and implementing 3D perception pipelines for autonomous navigation and obstacle avoidance.
- Coordinated the integration of a comprehensive sensor suite, including 2D/3D LiDARs, GMSL and PoE stereo cameras, ToF sensors, and monocular cameras, resulting in robust environmental awareness for autonomous operations.
- Pioneered the development of Deep Learning models for object detection and semantic segmentation, leveraging both real-world and synthetic data from NVIDIA's Isaac Sim to achieve production-grade accuracy in pallet detection, barcode recognition, and free space segmentation.
- Designed and implemented an innovative ultra-low latency streaming system enabling remote forklift operations across 1200 miles, successfully demonstrating complex warehouse operations including pick-up, drop-off, and bulk stacking.
- Orchestrated cross-functional collaboration between planning, controls, QA, and Customer Success teams to integrate perception and teleoperation systems into the production autonomy stack, ensuring compliance with industry safety standards.
- Optimized perception pipeline performance on NVIDIA's Jetson ORIN AGX platform utilizing TensorRT, achieving real-time processing capabilities for autonomous operations.
- Architected and implemented the department’s current CI/CD pipeline, featuring multi-stage Docker builds across multiple repositories to enhance security and minimize image size, streamlining development and production deployments for the robotics platform.

University of Groningen — **Groningen, Netherlands**
Teaching Assistant — *January 2020 - June 2020*

- Managed the computer lab during practical sessions, fielding any questions regarding assignments for Machine Learning and Deep Learning Courses master’s courses.
- Provided assistance to students with a variety of Machine Learning projects such as CNNs, RNNs, NLP, Reinforcement Learning, k-NN, random forests, among others. Utilized PyTorch, TensorFlow and Scikit-learn.
- Evaluated lab reports and assigned grades.

GMV — **Madrid, Spain**
Software Engineer — *February 2018 – September 2018*

- Provided L3 troubleshooting and support for the satellite control system. Using C++ and Java.

Entrol **Madrid, Spain**
Simulation Engineer *January 2017 – February 2018*

- Programmed the behavior of multiple specific aircraft subsystems in C++.
- In charge of the simulator's Hardware/Software integration.

EDUCATION

University of Groningen **Groningen, Netherlands**
MS in Artificial Intelligence *Graduation Date: October 2020*

- Thesis: An Approach to Lifelong Learning through Hierarchical Reinforcement Learning

University Carlos III of Madrid **Madrid, Spain**
BS in Electrical Engineering *Graduation Date: May 2016*

SKILLS & INTERESTS

Skills: Robotics | C++ | Python | Rust | Go | ROS | Docker | PyTorch | Reinforcement Learning | Deep Learning | Computer Vision | Linux | Azure | Google Cloud | Git | NVIDIA Orin | TensorRT | CUDA | Isaac Sim | Gstreamer | PCL