Object Identification with Depth Data for Robotics Picking

THEKER is a cutting-edge robotics and AI startup revolutionizing the industrial automation space. We operate in a **super fast-paced environment**, constantly tackling complex challenges and pushing the boundaries of robotics innovation. Our mission is to build intelligent, efficient, and adaptable robotic systems that make a real impact in the world.

About the Project

This project pushes the boundaries of robotic picking by integrating depth data and AI-driven object identification in complex environments. Using 3D vision and deep learning, the system not only detects objects but also understands their height and spatial context, enabling precise grasping and collision-free placement. The project will employ structured light cameras, stereo vision, or LiDAR sensors to generate depth maps, combined with point cloud processing techniques such as segmentation, clustering, and surface normal estimation. The deep learning component will include architectures like PointNet or 3D CNNs for object classification and pose estimation. A key challenge is to enhance grasping strategies by incorporating real-time feedback mechanisms, improving robotic autonomy in logistics, manufacturing, and industrial automation. The project can be extended with real-world testing in automated warehouses or collaborative robotics applications.

What We Offer

- The chance to be part of an **exciting, fast-growing robotics and AI startup**.

- A **super fast-paced environment** where your contributions will have a real impact from day one.

- A collaborative, supportive team made up of passionate innovators.

- The opportunity to work on **cutting-edge robotics projects** and solve real-world challenges.

- **Professional growth** opportunities and the chance to shape your career in a cutting-edge industry.

- A **positive, inclusive, and dynamic company culture** where new ideas are encouraged and valued.

- 100% on-site work in Barcelona

Final Observation

At **THEKER**, we are committed to **equality, diversity, and inclusion** in hiring. We believe that everyone should have the opportunity to contribute to building a better future, and we strive to create a workplace where **everyone feels welcome, respected, and valued**.

Join us in shaping the future of robotics at **THEKER**! 🚀

Ready to take on the challenge? **Apply now!**

#BuildingTheRobotsOfTheFuture