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TAKUMI

YOUR COMPLETE **ROBOTICS** CAREER JOURNEY



LEARN. BUILD. INNOVATE.

www.innova8r.com

TAKUMI



Takumi is a structured robotics learning and career platform designed to help you move from learning robotics to becoming career-ready.

Robotics can feel overwhelming with so many technologies, tools and career options.

Takumi gives you a clear direction:

What to learn



What to practice



What to build



How to prepare

From your first robotics concept to your career preparation, Takumi brings everything together in one place.



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THE TAKUMI ECOSYSTEM

Everything You Need to Grow in **Robotics**

Career Roadmaps

Structured paths for specific robotics career roles.

Robotics Cheat Sheets

Quick-reference resources for important robotics concepts and technologies.

Practice

Hands-on problems in C++, Python & Embedded C.

Mock Tests

Test your knowledge with standard and advanced assessments.

Guided Projects

Apply your learning through practical robotics projects.

Portfolio & Resume

Build career focused portfolios and resumes.

Interview Preparation

Prepare for technical rounds, projects and robotics concepts.

Community & Doubt Sessions

Learn, discuss and get guidance from the robotics community.

Certification

Complete your journey and apply for Takumi certification.

YOUR ROBOTICS JOURNEY

A Clear Path. Not Random Learning.

01

CHOOSE

Select the robotics career path that matches your goal.

02

LEARN

Follow structured roadmaps and use cheat sheets to strengthen your concepts.

03

PRACTICE

Solve problems and improve your programming skills.

04

TEST

Challenge yourself with mock tests and advanced exams.

05

BUILD

Apply your knowledge through guided projects.

06

SHOWCASE

Build your portfolio and resume.

07

PREPARE

Get interview preparation and career guidance.

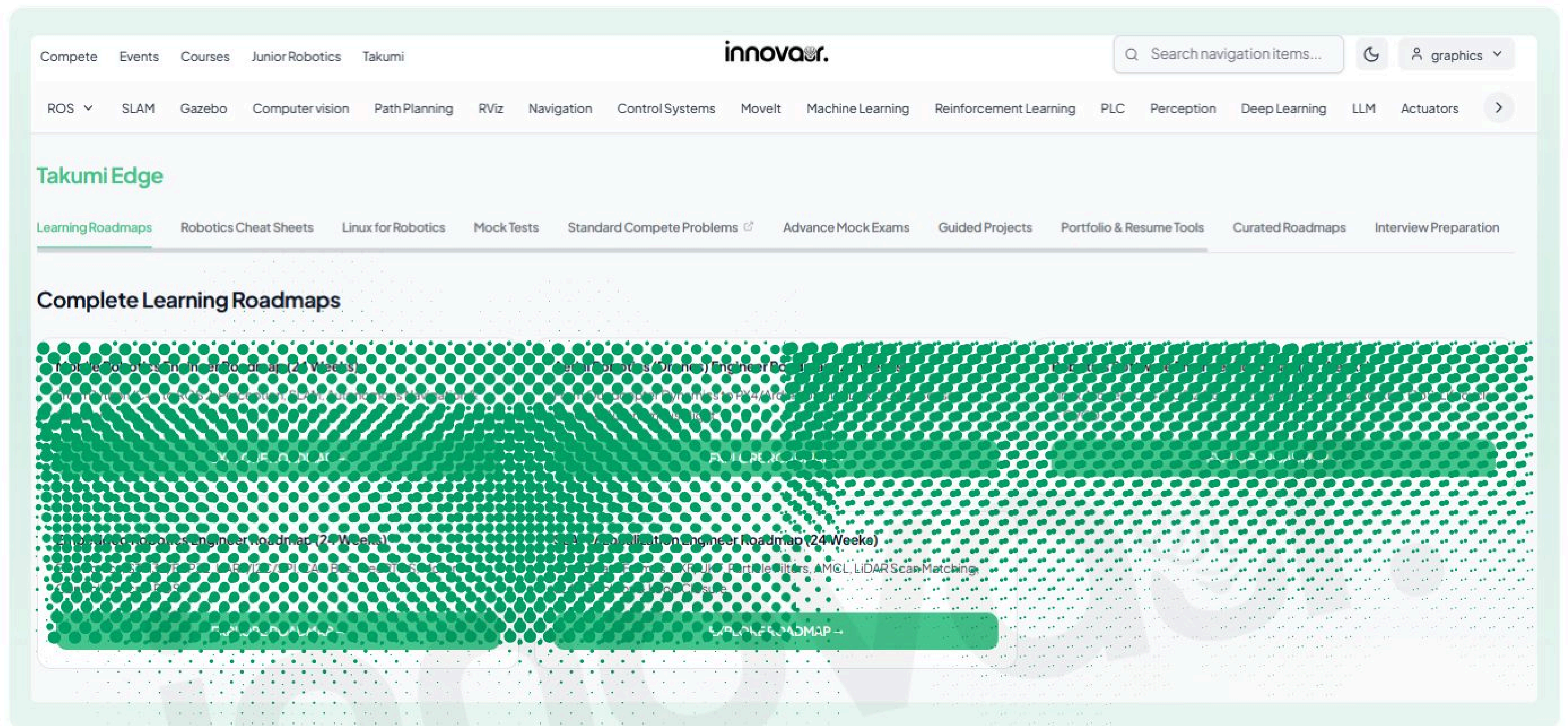
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GROW

Join the community, attend doubt sessions and get certified.

CAREER ROADMAPS

Choose Your **Robotics** Career Path



ACADEMIC & CAREER GUIDANCE

HIGHER STUDIES GUIDANCE



ACADEMIC OPTIONS

Explore suitable courses & programs

- Program Selection
- Specializations
- Study Pathways



STUDY DESTINATIONS

for Higher Studies

- Europe
- UK
- USA

Takumi provides 5 structured career **roadmaps** to help you focus on the skills that matter for **your target** role.

Mobile Robotics Engineer

ROS/ROS2, navigation, sensors, simulation and mobile robots.

Aerial Robotics

Autonomous aerial systems, control and robotics.

Robotics Software Engineer

C++, Python, ROS/ROS2, algorithms and robotics software.

Embedded Robotics Engineer

Embedded C, microcontrollers, sensors and hardware integration.

SLAM Robotics Engineer

SLAM, localization, mapping, sensors and robotics algorithms.

Choose a direction. Follow the roadmap. Build the skills.

BUILD

Strong Technical Foundations

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ROS SLAMGazeboComputer visionPath PlanningRVizNavigationControl SystemsMoveItMachine LearningReinforcement LearningPLCPerceptionDeep Learning

Takumi Edge

Learning RoadmapsRobotics Cheat SheetsLinux for RoboticsMock TestsStandard Compete ProblemsAdvance Mock ExamsGuided ProjectsPortfolio & Resume ToolsCurated Roadmaps

Robotics Cheat Sheets

1. URDF - Unified Robot Description Format2. Control Systems3. Computer Vision4. Coordinate Frames5. Embedded Systems6. Point Cloud Library7. Robot Kinematics8. ROS 2

1. WHAT IS URDF

URDF is an XML format used to describe a robot and a tree of links, connected by joints. It is ROS 1's standard robot description language. It is a text-based format that can be used to describe a robot's geometry, kinematics, and dynamics. It is a standard format for robot description that is used across ROS 1, ROS 2, Gazebo, MoveIt, and other ROS ecosystem tools. It provides the kinematic transform tree for the robot's joints.

2. KEY POINTS

2. LINKS

A link represents the relationship and allowed motion between two links. It is a rigid body that can move relative to the parent link. It is a standard format for robot description that is used across ROS 1, ROS 2, Gazebo, MoveIt, and other ROS ecosystem tools. It provides the kinematic transform tree for the robot's joints.

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ROS SLAMGazeboComputer visionPath PlanningRVizNavigationControl SystemsMoveItMachine LearningReinforcement LearningPLCPerceptionDeep Learning

Back

Master Programming Through
Interactive Practice

1. C++

2. Python

3. Embedded C

1. C++

Powerful and expressive programming language. Used for many applications.

2. Python

Easy to learn and use. Used for many applications.

3. Embedded C

Used for low-level programming and hardware control.

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Empowering future innovators with expert-led robotics education.

Company

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Quick Links

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Stay Updated

Get the latest robotics news, tutorials, and course updates delivered to your inbox.

Robotics Cheat Sheets

Quick-reference resources designed to help you understand and revise key robotics topics.

URDF

Control Systems

Computer Vision

Coordinate Frames

Embedded Systems

Point Clouds

Robot Kinematics

ROS 2

Linux for Robotics

Build confidence with essential Linux commands and workflows used in robotics development.

Practice

Put your knowledge into action with hands-on problems in:

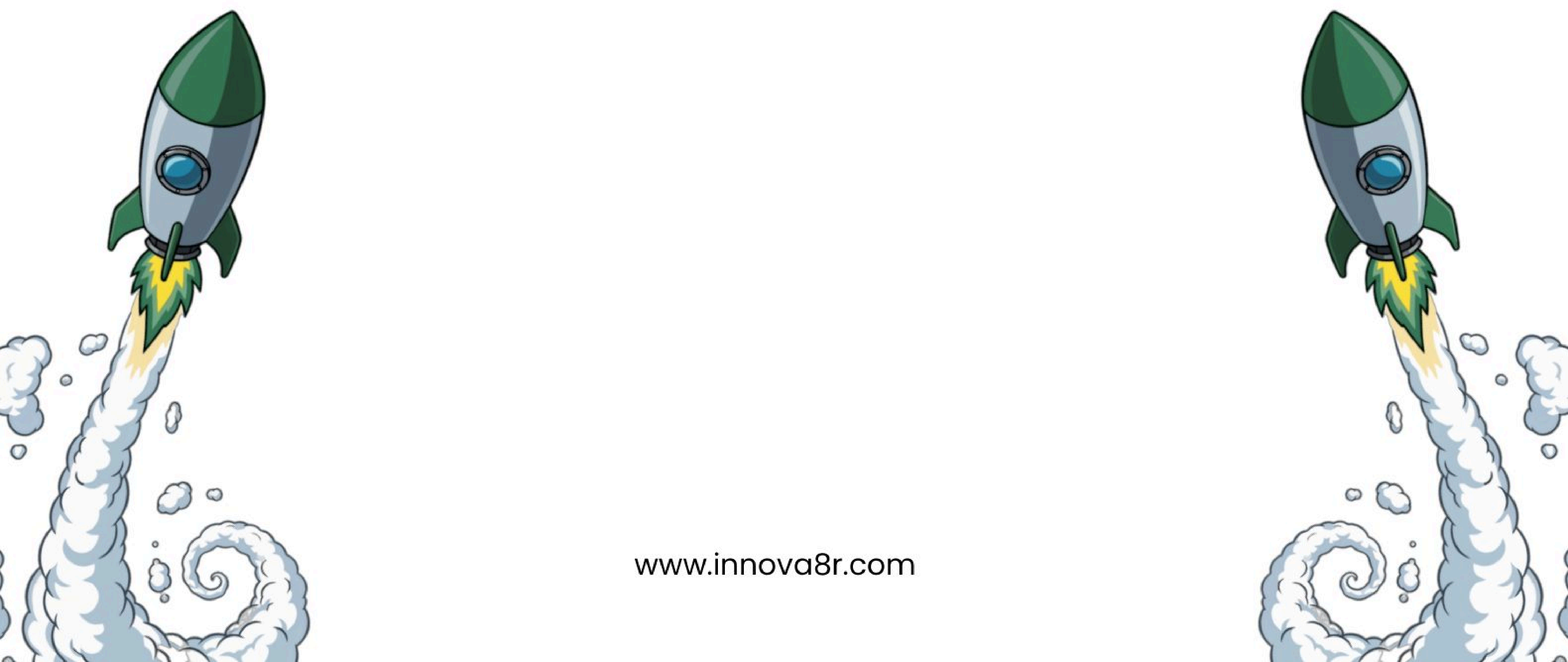
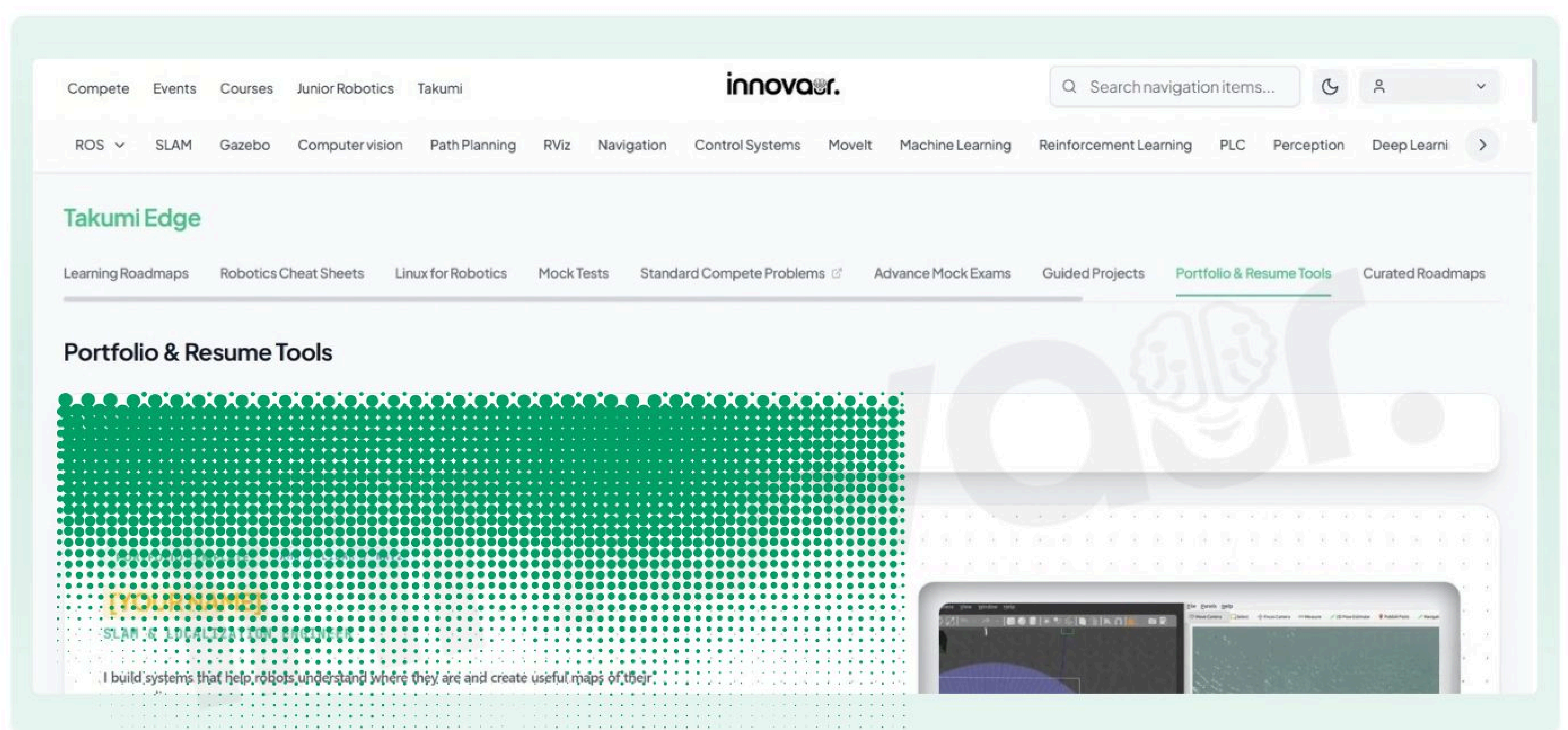
C++ | Python | Embedded C | Mock Tests

Test your understanding with:

Standard Mock Tests
Advanced Mock Exams

BUILD + SHOWCASE

Turn Knowledge Into Real Skills



Guided Projects

Apply your learning through structured robotics projects and gain practical experience.

Learn →

Build →

Debug →

Improve

Portfolio & Resume Tools

Create career-focused profiles for:

- **Aerial Robotics**

Showcase your aerial robotics projects and skills.

- **Embedded Systems**

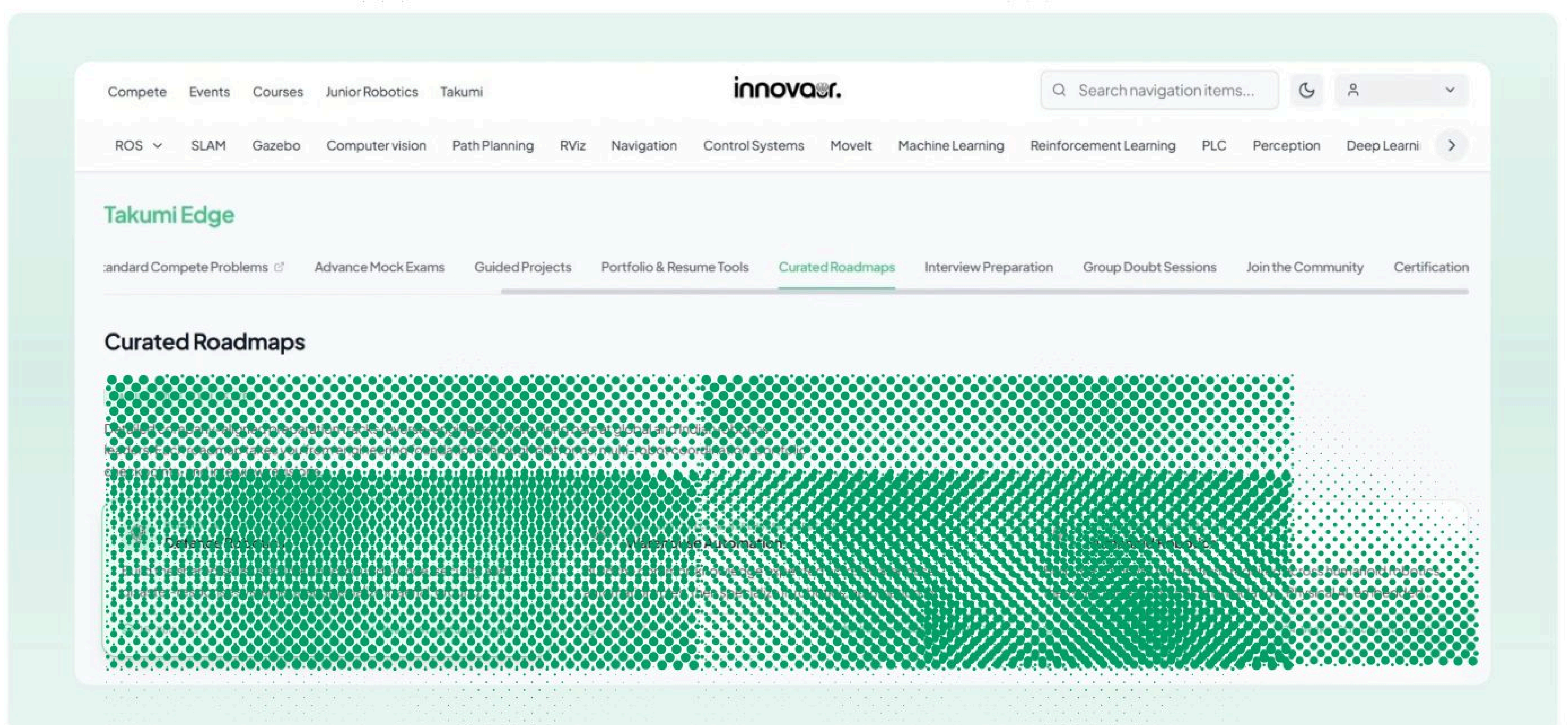
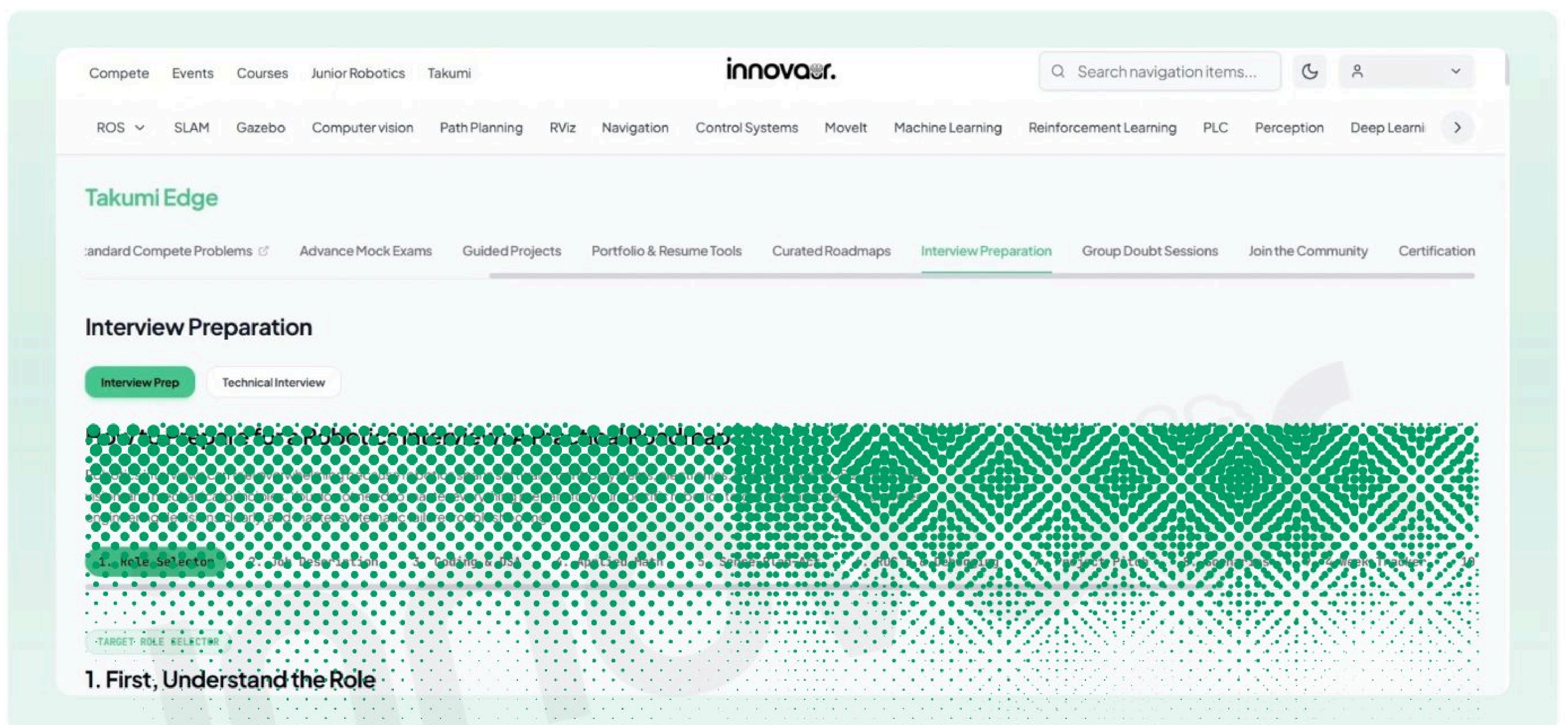
Present your embedded systems experience.

- **SLAM & Localization**

Highlight your mapping and localization projects.

CAREER SUPPORT

Prepare for the Real World



Interview Preparation

Learn how to prepare for:

Technical interviews

Coding rounds

Robotics concepts

Project discussions

Role-specific interviews

Curated Robotics Roadmaps

Explore specialized robotics domains
beyond your primary career path.

Defence Robotics

Explore
autonomous and
defence-focused
robotics.

Warehouse Automation

Explore AMRs,
navigation and
automated
warehouse
systems.

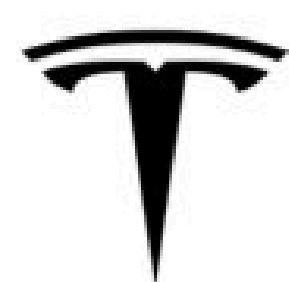
Humanoid Robotics

Explore perception,
motion, control and
humanoid systems.

Group Doubt Sessions

Have a question
or stuck on a
concept?

**Get Industry Ready, Unlock
Career Opportunities**

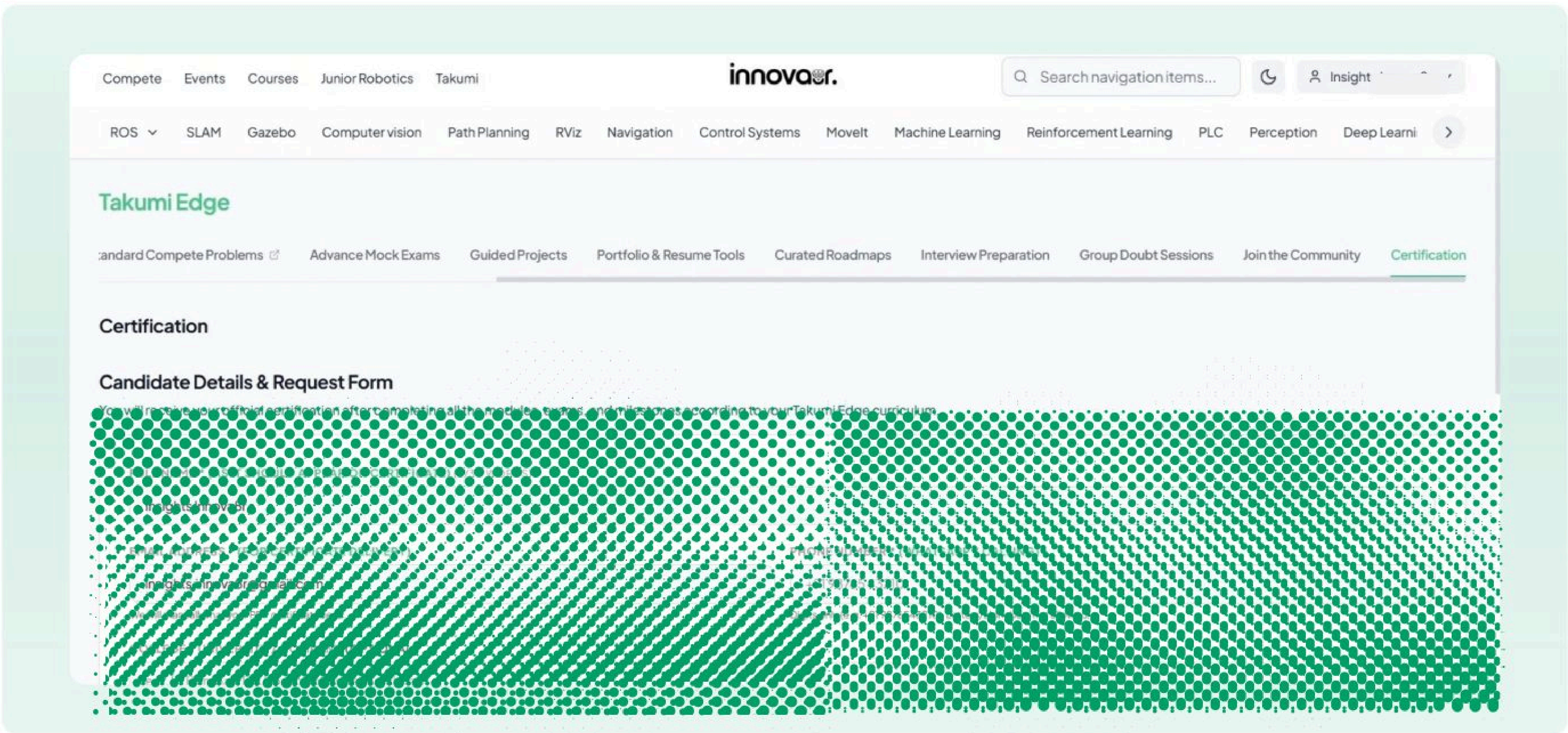
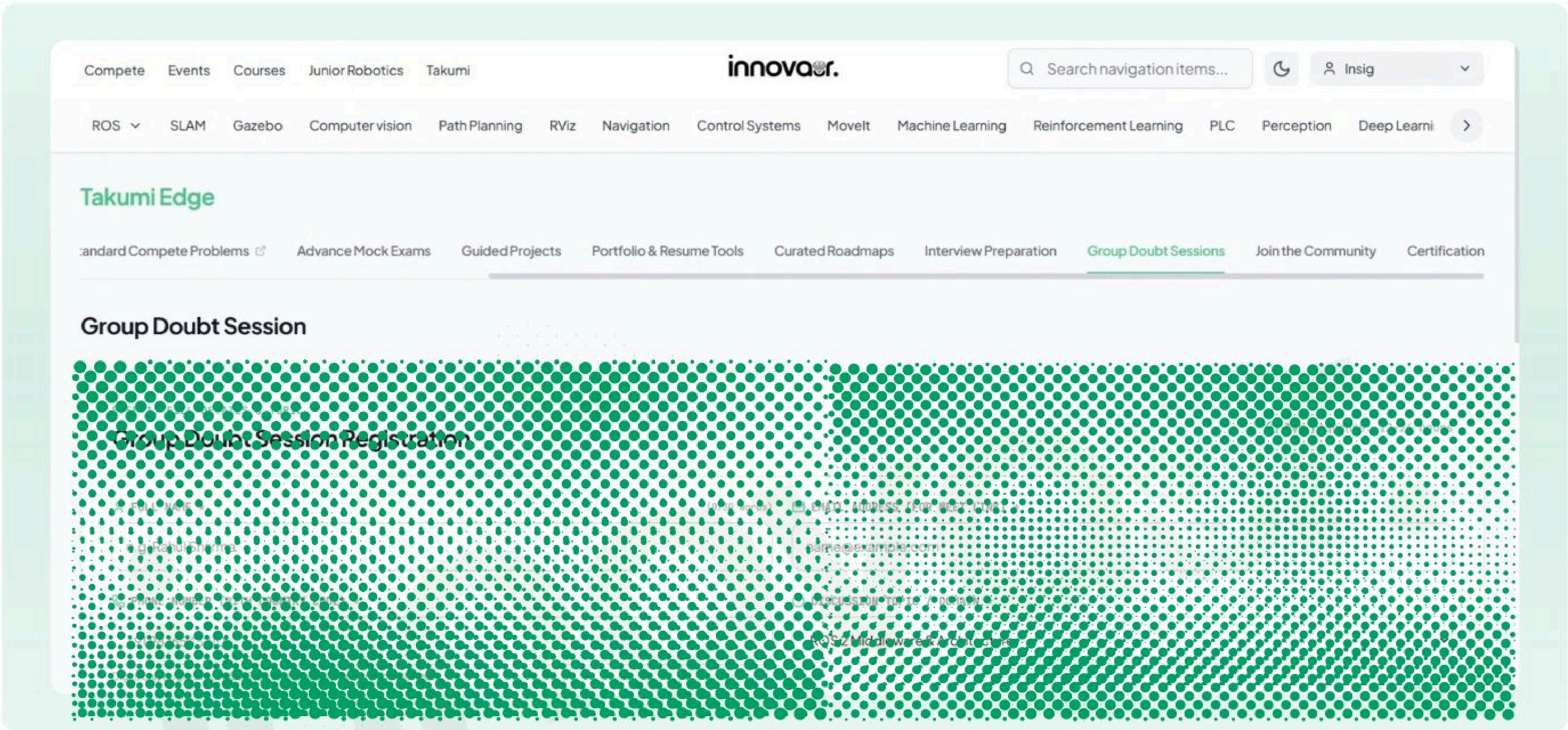


COMMUNITY + CERTIFICATION + PLANS

Learn Together. Grow Together.

innova8r Community

Join our Discord community to:



innova8r Community

Join our Discord community to:

 **Takumi Certification**

Complete your learning journey and
apply for certification.

Submit Form →

Review →

Evaluation →

Certification

Choose Your Takumi

TAKUMI CORE **Build Your Foundation**

- Career Roadmaps
- Robotics Cheat Sheets
- Practice Problems
- Solutions & Hints
- Beginner Projects
- Linux for Robotics
- Community Access
(Discord)
- Standard Compete
problems
- Certification

TAKUMI EDGE **Prepare for Your Career**

- Everything in core +
- Detailed solutions and
progressive hints
- Beginner/intermediate guided
projects
- Company and role-curated
roadmaps
- Takumi Edge interview problems
- Mock interviews with scorecard
- Resume and portfolio tools
- Career guidance and group
doubt sessions

INTERNSHIP OPPORTUNITY

Turn Your Learning Into Real-World
Opportunities.

**Successful completion of course
and exceptional project**

will get opportunity for

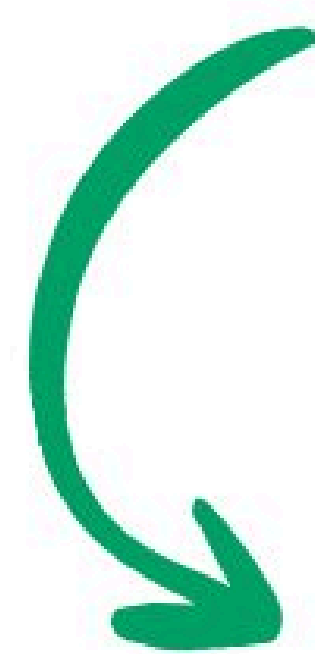
INTERNSHIP



COURSE COMPLETION



EXCEPTIONAL PROJECT



**INTERNSHIP
OPPORTUNITY**



READY TO BUILD YOUR ROBOTICS CAREER?

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