Interview Notes: Keysight Technologies

Date: 28 August 2025, 13:00 | **Location:** Frankfurt

Candidate Profile

Name: Milind
Address: Leipziger Str. 33, Frankfurt (8 km from Keysight)
Education: Masters in AI for Smart Sensors and Actuators, Deggendorf Institute of Technology, Cham Campus (Mar 2025)

- Focused on AI integration with autonomous robotics using C++ and Python

Experience:

- **Persystems (8 months)**
  - Qt/C++ Developer (5 months, full-time): Developed Virtual Testbench for e-drive simulation (electric motors, control systems, power electronics)
  - Working Student (3 months): Built e-drive simulation app using C++ and Qt
- **AVL (15 months)**
  - Masters Thesis (6 months): Developed closed-loop ADAS simulation components using C++, MATLAB, FMI 3.0, ASAM standards (OpenDrive, OpenScenario, OSI)
  - Working Student (9 months): Developed Adaptive AUTOSAR applications using C++

Introduction

My name is Milind, from India, currently living in Frankfurt. I completed my Masters in AI for Smart Sensors and Actuators in March 2025, specializing in AI for autonomous robotics using C++ and Python. I worked at AVL for 15 months, developing C++ applications and simulation components for self-driving cars, and at Persystems for 8 months, building e-drive simulation software using C++ and Qt. My C++ and Qt expertise, combined with AI skills, enables me to contribute to Keysights simulation projects and broader vision in automotive, 5G, and quantum technologies.

Tasks

1. Prepare and time introduction (done)
2. Verbally prepare for behavioral and technical questions
3. Test equipment

- Video tested solo: working
- Audio tested with Anmol: clear, demo intro given

4. Review OOP and DSA concepts

- Binary search tree balance: Compare approaches (height difference, AVL, red-black trees), complexity O(n) for traversal
- Access modifiers in classes (public, private, protected)
- Bit-level programming, OS concepts, brain teasers

5. Prepare behavioral questions (`https://theinterviewguys.com/behavioral-interview-question`

Behavioral Questions

Challenge/Proud Achievement (STAR Method)

- **Situation:** Client needed graphical node connections in Virtual Testbench for e-drive simulation (inverters, batteries)
- **Task:** Implement drag/drop/connect functionality using a suitable library
- **Action:** Integrated Qt Nodes into GUI using C++ and Qt, enhancing user-friendliness
- **Result:** Improved e-drive simulation, making the tool intuitive and efficient

Why Keysight?

Keysight leads in simulation and AI integration, aligning with my C++ and Qt experience at AVL and Persystems, where I developed Virtual Testbench and ADAS simulations. The roles focus on real-world physics and interactive UIs matches my skills. Keysights work in automotive, 5G, and quantum excites me, and living in Frankfurt (Leipziger Str. 33) makes it a perfect fit to contribute to the global RD team.

Strengths and Weaknesses

Strengths:

- Problem-solving, punctuality, adaptability, attention to detail

Weaknesses:

- Task delegation: Previously took on too much; improving by chunking and distributing tasks, learning from supervisors
- Presentation skills: Improving through practice in previous roles

Suitability for Role

- Built simulation software at AVL (C++) and Persystems (C++/Qt)
- Client-facing experience, translating requirements into products
- Proficient in C++, C#, Python, CI/CD, CMake
- AI skills for broader contributions (Eggplant test automation, Digital Twin, IoT)
- Local to Frankfurt (8 km from office)

Questions for Interviewer

- What is the team size and dynamics?
- How is feedback provided, and how often are performance reviews?

Technical Preparation

- Low chance of technical round in 30-min video call, but prepared for:
  - OOP: Access modifiers, inheritance, polymorphism
  - DSA: Binary search tree balance (height comparison, AVL), complexity analysis
  - Bit-level programming, OS concepts, brain teasers

Company Overview

Keysight Technologies:

- Solutions: Design, simulation, prototyping, testing, manufacturing, optimization
- Domains: Communications, 5G, automotive, energy, quantum, aerospace, defense, semiconductors
- Tools: PathWave Design (EM modeling, circuit design, PCB simulation), Eggplant test automation
- Frankfurt Branch: R&D focused on simulation apps with international team

Additional Notes

- **Job Role:** C++ developer for simulation applications, integrating real-world physics, interactive visualization, responsive UIs
- **Salary Expectation:** 55,000 per annum