Driving decarbonization and digitalization. Together.

Master Thesis: Automated planning of front-end production routines (f/m/div)

Job description

This specific internship is suitable for students within a master degree program in Computer Science, Electrical Engineering or similar! The Frontend cluster is responsible for the planning, quality and productivity of its semiconductor manufacturing and drives related process and manufacturing innovations. Our team in Villach is looking forward to receiving your application!

As part of the Technology Tool Kit project this position focuses on the development of a planning approach that, given a knowledge graph and a set of product requirements, can construct and validate a production plan optimal with respect to a selected criterion. The approach should be able to (a) construct production plans from scratch or a partial plan, (b) verify a set of existing plans for consistency, and whenever possible, (c) suggest repairs to identified inconsistencies.

In your new role you will further:

- Define the **fabrication planning problem** and identify **data sources** for its inputs
- Perform a **literature review** to identify suitable planning approaches
- Suggest **improvements** to the **Knowledge Graph data** required by the selected planning method
- Implement **planning methods** for the three tasks listed above

This thesis has to be written in cooperation with an university.
Further Information
Type of employment: Temporary / Full-time (flexible working hours from Monday to Friday between 6 a.m. and 7 p.m.)
Duration: min. 12 months

Profile

You successfully meet the requirements if you are a motivated and committed student in **Computer Science, Electrical Engineering**, or similar.
You are best equipped for this task if you additionally have the following qualifications:

- **Knowledge** of **planning approaches** including **standard languages**, like **PDDL**, and basics of planning methods
- Basic **knowledge** of **semantic technologies,** such as **ontologies, RDF**, and **SPARQL** ; experience with **graph DBs** is a plus
- A basic **understanding** of the **cloud infrastructures**, e.g., **OpenShift** and **containers**, is a plus

At a glance

Location:	**Villach (Austria)**
Job ID:	**HRC0752834**
Start date:	**as soon as possible**
Entry level:	**0-1 year**
Type:	**Full time**
Contract:	**Temporary**

Apply to this position online by following the URL and entering the Job ID in our job search. Alternatively, you can also scan the QR code with your smartphone:

Job ID: **HRC0752834**
www.infineon.com/jobs

Contact

Sabrina Nindler
Recruiter

Infineon

This position is subject to the collective agreement for workers and employees in the electrical and electronics industry (full-time), employment group D for master students (https://www.feei.at/wp-content/uploads/2023/05/minimum-salaries-white-collar-workers-2024.pdf).

Please attach the following documents (German or English) to your application:

- Motivation letter
- CV
- Certificate of matriculation at a university
- Latest Transcript of records (not older than 6 months)
- Highest completed educational certificate (Bachelor certificate for Master students)
- Reference letter (optional)

Benefits

- **Villach:** Möglichkeit für Coaching, Mentoring & Netzwerken; Trainingsangebot & strukturierte Entwicklungsplanung; Möglichkeit zur internationalen Entsendung; Verschiedene Karrierepfade: Project Management, Technical Ladder, Management & Individual Contributor; Flexible Arbeitszeit: Vertrauensgleitzeit; Möglichkeit zum Home Office; Offenheit für Teilzeit (auch in der Elternzeit); Sabbatical; Kindergarten am Standort Villach & Klagenfurt; Sozialberatung & Betriebsarzt; Gesundheits- & Vorsorgeprogramme; Kantine; Versicherungsangebot zu attraktiven Konditionen; Lohnfortzahlung im Krankheitsfall; Arbeitgeberfinanzierte betriebliche Altersvorsorge; Offenheit für flexiblen Übergang in die Altersrente; Erfolgsbonus; Barrierefreiheit am gesamten Standort

Why Us

Driving decarbonization and digitalization. Together.

Infineon designs, develops, manufactures, and markets a broad range of semiconductors and semiconductor-based solutions, focusing on key markets in the automotive, industrial, and consumer sectors. Its products range from standard components to special components for digital, analog, and mixed-signal applications to customer-specific solutions together with the appropriate software.

The **Frontend (FE)** cluster offers a broad range of manufacturing competence specialized in high-quality logic products. The portfolio represents Power, Bipolar, Sensor, Passive and Diode technologies as well as CMOS, RF-CMOS and embedded flash technologies. The manufacturing sites in Dresden, Kulim, Regensburg and Villach are committed to Operational Excellence with strong customer focus.

>> Click here<< for more information about working within our Frontend department at our site in Villach and an overview of all open jobs **#FrontEndAustria**

We are on a journey to create the best Infineon for everyone.
This means we embrace diversity and inclusion and welcome everyone for who they are. At Infineon, we offer a working environment characterized by trust, openness, respect and tolerance and are committed to give all applicants and employees equal opportunities. We base our recruiting decisions on the applicant´s experience and skills.
We look forward to receiving your resume, even if you do not entirely meet all the requirements of the job posting.
Please let your recruiter know if they need to pay special attention to something in order to enable your participation in the interview process.
Click here for more information about Diversity & Inclusion at Infineon.

Infineon Hub - Connect. Create. Challenge.

The iHub at TU Wien represents an inspiring tech platform, networking area and event location, connecting Infineon Austria with tech experts, science specialists and young professionals.

Check out our upcoming events:
Infineon iHub