

# Miele Brasov Summer Internship

15 June - 4 September 2020



#### **About Miele Brasov**



### ■ Miele - Premium brand for more than 120 years

Miele is present in Braşov since 2009 with a **production plant** that provides the group with the necessary electronic components and subassemblies for the control units of the smart home appliances and with a **Software Development** department in which software programs are developed for a variety of Miele home appliances and professional products.

#### **Contact persons:**

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#### If you want to know us, you can find us at:

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## Summer Internship@Miele Brasov

	Miele Summer Internship: 15 June - 4 September 2020				
No	Departament	Project title			
1	Process engineering	Documentation of the THT efficiency calculation process			
2	Process engineering	Documentation of the SBS and SMT efficiency calculation process			
3	Production	Smart Planning			
4	Manufacturing Engineering	Preventive maintenance - Washing equipment			
5	Manufacturing Engineering	Preventive maintenance - Wave soldering equipment			
6	IT (Information Technology)	Web Application - Display Monitoring			
7	SWD (Software Development) - Embedded	AI - Fabric Detection			
8	SWD (Software Development) - Embedded	Skype Lights Signaling Device			
9	SWD (Software Development) - Mobile Application	Tech Quiz App			
10	SWD (Software Development) - HMI	QT Event Logger			

Apply until 01 May 2020 recrutare@miele.ro



# **Project details**

No.	Department	Project title	Description/ Details	No of places	Specific requirements
1	Process engineering	Documentation of the THT efficiency calculation process	Determining the sources and structures of data that serve as input to the calculation process of THT efficiency. •Realization of a flow describing the process of data compilation	1	Procedural approach, structured thinking, attention to detail, communication skills, perseverance
2	Process engineering	Documentation of the SBS and SMT efficiency calculation process	Determining the sources and structures of data that serve as input to the calculation process of SMT efficiency.  •Realization of a flow describing the process of data compilation	1	Procedural approach, structured thinking, attention to detail, communication skills, perseverance
3	Production	Smart Planning	Documentation of data sources and structures that serve as input in the process of planning / allocating human resources on production exchanges Project documentation and defining the course of work with the operators. Allocation of operators according to knowledge at workstations. Aligning the difficulty of a product with the competencies and experience of the operator. Defining the need for operators based on customer orders.	1	Must have: knowledge in mathematics (probabilities) Nice to have: experience in the production area, knowledge in programming fields What will you achieve: understanding the efficiency calculation of an operator, developing knowledge of production planning, understanding production processes.
4	_	Preventive maintenance - Washing equipment	Replacing process of cleaning solvent and filters triggered by an automation:  optimization of cleaning solvent usage by checking of solvent properties,  define cleaning process tolerances,  highlighting the moment when the solvent should be changed,  highlighting the moment when the filters should be changed.	1	Qualification requirements : Chemistry, automation (3rd or 4th year of study)
5	Fngineering	Preventive maintenance - wave soldering equipment	Optimization of maintenance scheduling activities/ Optimization of spare parts management .  •highlighting the moment when some specific preventive maintenance actives need to executed  •highlighting the moment when the spare parts should be changed	1	Qualification requirements:  Materials science engineering ,mechanics engineering electronics, automation  (3rd or 4th year of study)

Miele. Immer Besser.



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6	IT (Information Technology)	Web Application - Display Monitoring	Create an application that should monitor realtime the status and content of the displays mounted in the factory.  •Application should provide an overview with all displays in the factory and status if systems are running, connected to network, with the planned content displayed.	1	Automated Testing Frameworks; Web Application Integration; BootStrap; Jquery Certification of Programming skills/ Competencies represents an advantage	
7	SWD (Software Development) - Embedded	AI - Fabric Detection	Research and train an AI model to detect different type of fabrics.  This ca be used by a washing machine to select a type of program.	1	Python Programming Language, Image processing and Machine Learning Certification of Programming skills/ Competencies represents an advantage	
8	SWD (Software Development) - Embedded	Skype Lights Signaling Device	Create a system consisting from a hardware device and a mobile application that can signal different colors based on the status from Skype Application.  •The objective of the project is to have a fully functional infrastructure as follows:  - a station with Skype for business on it, corresponding to a colleague or meeting room, running a Windows Service that will report the availability status to a server  - a local server consisting of a Raspberry Pi registered in the local network, accepting requests with the status changes, and with status queries  - a microcontroller with wi-fi, that will query the status of the entity described at point the first point, and interpreting different statuses in different ways ( turn lights, etc)	1	Must have: - Basic programming knowledge: e.g.: variables, primitive data types, loops, if else, switch, functions - Basic OOP knowledge like classes, objects, constructors, destructors, inheritance, interfaces - Basic Embedded concepts: microcontroller, resistor, led, etc  Nice to have: - Previous experience in working with an OOP language - Embedded projects (at school or personal) - Web-based projects (at school or personal) Certification of Programming skills/ Competencies represents an advantage  What will you achieve / themes you will work with: - Working with an operating system for embedded devices - Linking together multiple physical datasources - Basic technical knowledge about Wi-Fi / TCP - Basic knowledge of working with a database - REST calls - Improve your C#/ C++ language knowledge	



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9	SWD (Software Development) - Nobile Application	Гесh Quiz Арр	A mobile application developed for Android, developed in Xamarin where Miele Job Advertising can have assigned a technical quiz relevant for the position.  • Participants must register on the platform in order to start the quiz. After ending the quiz, participant will receive an information about their compatibility with the position technical requirement.	1	Must have: - Basic programming knowledge: e.g.: variables, primitive data types, loops, if statement, switch statement, functions - Basic OOP knowledge: e.g.: classes, objects, inheritance, interfaces  Nice to have: - Previous experience in working with an OOP language (eg: C#   Java   Kotlin   Swift   C++) - Any mobile development knowledge / experience  What will you achieve / themes you will work with: - Basic knowledge of mobile programming (app lifecycle on Android platform) - Working with the Xamarin platform - Basic knowledge of working with a database - REST calls - Improve your C# language knowledge and learn about related .NET features such as Lambdas, LINQ and Asynchronous programming (async/await)
10	SWD (Software Development) - (	QT Event Logger	Develop an application that must log all the events triggered with the QT framework used by the HMI Team.  •The objective of this project is to log all the events are coming from a QT application with QML in order to be able to see what an user is doing in QT with QML application from the events like (mouse click, slide on the window, and so on).	1	Must have:  - Basic programming knowledge: e.g.: variables, primitive data types, loops, if else, switch, functions - Basic OOP knowledge like classes, objects, constructors, destructors, inheritance, interfaces  Nice to have: - Previous experience in working with an OOP language - HMI frameworks (at school or personal) - Web-based projects (at school or personal) Certification of Programming skills/ Competencies represents an advantage  What will you achieve / themes you will work with: - Working with a framework which is multiplatform, meaning that you can develop in windows for instance, to compile the application for Linux or Android in order to have the same interface for your program - Linking together multiple physical datasources - Working with log files and with events - Improve your C++ and Python language knowledge  Miele: Immer Besser.

### Informations/ How to apply

■ Practice between 15 June – 4 September

■ Place of practice: Miele Tehnica, Carl Miele, No. 1 Street, Feldioara, 507065, Brasov

Applications will be sent until <u>01 may 2020</u> on the UNITBV online platform, but please also send the CV in English with information about the school results, along with a letter of intent describing the interest to a particular area and the reason for choosing the company for the internship, to the address: recrutare@miele.ro Save the document as: "YourName\_UNITBV\_2020"

The initial selection will be based on the CVs received and the letters of intent.
 (online or face-to-face interviews / telephone will be organized)

#### **Benefits offered:**

- Remuneration and meal vouchers
- Accommodation for students outside Brasov
- Canteen discount
- Bookster
- Specific training on the job and mentoring
- Opportunity to continue with a diploma project supported by us
- Transportation (BV-Feldioara-BV)
- Medical service available on site
- Massage at the office
- Fruit day

