

Avesta MOLAEI

Automotive systems testing engineer.

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Ile de France, Marne la Vallée | Driver's License

WORK EXPERIENCE

2023-2024 – Brake Systems Testing Engineer, **Bosch France (VM/EYB5)**, Drancy (93), FRANCE

- Instrumentation, bench development and management of IIS test campaigns, internal inertial sensor tests on ESP10. Design of a bench testing 2 parts at the same time to reduce test campaign duration.
- Instrumentation, bench development and management of flowrate test campaigns; master cylinder tests and brake fluid viscosity tests.
- Development of new testing resources to ensure the continuous improvement of the laboratory
- In charge of the laboratory's 3D printing division, machine management, design, and manufacturing.
- Expert and referent for the DASIM solution, a real-time Linux co-simulation target
- Expert and referent for the Qlik solution, the laboratory's data analysis and visualization solution

2020-2023 – Prototyping/Virtualization Apprentice, **Bosch France (ETAS/ETFR)**, St Ouen (93), FRANCE

- Work around the virtualization of the ECU, the car, and its environment
- Development of a distributed cloud computing platform (SaaS) with Apache Cloudstack and AWS
- Automotive Software Prototyping (MATLAB/Simulink, eHOOKS, INTECRIO) ; SiL (COSYM) ; C & Ruby Programming

TRAINING

2023-2024 – Bosch France (93)

BR Electrical training (<1000V)

NI DASYlab, Vector Flexray/CAN, EMI trainings

2018-2023 – ESIEE Paris (93)

2020-2023: **Engineering Cycle (Apprenticeship), MS in Embedded Systems**, Transportation & IoT

- TOEIC (990/990)

- Voltaire Certificate

2018-2020: **ESIEE Preparatory Cycle**

TECHNICAL SKILLS

Automotive technologies:

- Braking Systems (ESP10, TMC, IPB/IBooster/BWA)
- Design, installation, and development of test benches
- Mechanics and hydraulics, harnesses and electronics, sensors/actuators/acquisition/measurement.
- Bus CAN, CAN HS, CAN FD, Flexray
- IMC/Famos, CANalyzer, ACW, MM6x, TKwinX, VX/VN, DASIM, TFW, DASYlab, PEAK-PCAN.

Electronics:

Analog and Digital Electronics, Simulation (Cadence, LTSpice), **Design** (Eagle, KiCAD, EasyEDA), **Soldering**

MCU Platforms: PIC16F, ATMEL AVR/Arduino, STM32F4, NXP, ARM Cortex M0, M7

Tools, Machines and CAD/CAM

3D Printing (FDM, SLA), CNC milling, Soldering, Oscilloscopes, Multimeters, Autodesk Fusion 360 (advanced), CATIA v5(basic)

Software skills

C, Java, MATLAB/Simulink, Java for Android (medium)

Linux (advanced), Network & NAS (advanced),

Virtualization (VMware, VirtualBox), **Git, GitHub, Cloud.**

PERSONNAL PROJECTS

2023 – **AV-RK MK II** - github.com/avmolaei/AV-RK-MK2

Developed an Open-Source, Ergonomic, Modular Mechanical keyboard

- CAD/CAM, 3D printing, PCB Design and manufacturing, Electronics (SAM21), C programming

2022-2023 – **REBEC2A** - git.esiee.fr/benkemoj/5e-pr1

Developed an Open-Source RC hobby/model car platform

- CAD/CAM, 3D printing & CNC, Electronics (NXP ARM M7), RF, C programming, MATLAB/Simulink

LANGUAGES

- French (*native*)
- English (*fluent*)
- German (*basic*)

HOBBIES

- Electronics: Making, Hacking and DIY
- Automotive: Maintenance and Repairs
- Video Games: History and restoration of antique consoles

References available on request