

AJAY GOWDA

Amsterdam, Netherlands

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WORK EXPERIENCE

EVBOX

Systems Validation Engineer

Amsterdam, NL

Sep 2020 - Present

- Design, develop and execute automated firmware tests to validate system requirements like OCPP and IEC-61851 / ISO-15118 compatibility, happy/unhappy paths, and custom features.
- Visualization of data with dashboards (Google data studio, Grafana) from databases (Google Big Query) for analysis.
- Develop, deploy and maintain data acquisition infrastructure like databases, visualization tools and vpns on AWS.
- Design and develop test benches for correct and repeatable hardware and software validation and verification.
- Assist customers with highly customized charging infrastructure implementation.
- Assist with pre-compliance testing for certifications such as Energy Star and UL.

ETERNAL SUN SPIRE

Development and Validation Engineer

The Hague, NL

Aug 2018 – Jul 2020

- Troubleshoot issues with prototype and production photovoltaic Test Equipment in Lab and Manufacturing lines.
- Work with customers on development projects by fixing critical issues, adding features and tuning prototype machines.
- Design and develop control architecture for photovoltaic test machines to enable optimal performance and data acquisition.

GENERAL MOTORS

Hybrid Powertrain Development Engineer

Milford, USA

Jan 2016 – Aug 2018

- Develop efficient powertrains with optimal fuel economy and exceptional performance via work on batteries, motors, hydraulic systems, internal combustion engines, and power electronics.
- Ensure vehicle test fleet is up to date with latest hardware and software.
- Collect and analyse data from vehicles on test tracks, in extreme locations, and state of the art high feature test cell using vehicle monitoring software and hardware.
- Validate new hybrid and electric powertrains subjectively and objectively.
- Ensure vehicle test fleet is up to date with latest hardware and software.

Algorithm Development Engineer – Thermal Controls

Jul 2015 – Jan 2016

- Developed thermal control system for liquid cooled High Voltage battery systems.
- Software functionality test using SIL and HIL testing techniques.

UNIVERSITY OF WASHINGTON

Research Assistant at EcoCAR Laboratory

Seattle, USA

Oct 2013 – Jun 2015

- Build, run and assess hybrid powertrains configuration for real world feasibility
- Worked on control logic of the supervisory controller that interlinks the two powertrains. (Electric and Diesel)

EDUCATION

UNIVERSITY OF WASHINGTON

Master of Science in ME, Control Systems

Seattle, USA

Sept 2013 – May 2015

- Linear Controls, Digital controls, Optimal Controls
- Master's Thesis - System Level Modeling and Simulation of a Hybrid Vehicle.

MANIPAL INSTITUTE OF TECHNOLOGY

Bachelor of Science in Mechatronics Engineering

Manipal, India

June 2009 – May 2013

- Control Theory, Analog and digital circuit design, Embedded Systems, PLC, Hydraulic and Pneumatic systems.

TECHNICAL SKILLS

Languages: Python, MATLAB/ Simulink, JAVA, C/C++, TypeScript, HTML, Structured Text (PLC),YAML, XML, SQL

Technologies: AWS, Google Big Query, Google Data Studio, Grafana, Influxdb, Docker, Linux, ARM, GIT, Polaron

Frameworks: FastAPI, Django, pytest, opencv, pymodbus, socketCAN

Automotive industry tools: MDA, INCA, Vehicle Spy, dSPACE, neoVI, High Performance Driver Education from GM

Standards: OCPP, ISO-15118, IEC-61851, MODBUS, CAN, REST API, Websockets, OPC UA, OBD2, EEBUS