



# AJAY GOWDA

Amsterdam, Netherlands

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## WORK EXPERIENCE

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### EVBOX

*Systems Validation Engineer*

Amsterdam, NL

Sep 2020 - Present

- Design, develop and execute automated firmware tests on current and next gen products for regression testing.
- Develop, deploy and maintain data acquisition infrastructure like databases, visualization tools and vpns on AWS.
- Design and develop one off test setups for unique test scenarios including data acquisition and generating reports.
- Design and develop test benches for correct and repeatable hardware and software validation and verification.
- Assist with pre-compliance testing for certifications such as Energy Star and UL.
- Develop and maintain EOL (End of Line) test applications.

### 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 partners to develop and improve new test machines by adding features and fixing critical hardware/software bugs.
- Design and develop control architecture for complex 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.
- Analyze and collect 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.
- Construct one-off wiring harnesses that include high voltage and CAN communication loops.

*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

- Research Assistant at UW EcoCAR Lab.
- Build and run software models to assess feasible hybrid powertrains
- Worked on control logic of the supervisory controller that interlinks the two powertrains. (Electric and Diesel)

## EDUCATION

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### UNIVERSITY OF WASHINGTON

*Master of Science in ME, Control Systems - CGPA - 3.6/4.0*

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 - CGPA - 8.9/10*

Manipal, India

June 2009 – May 2013

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

## TECHNICAL SKILLS

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**Languages:** Python, MATLAB/ Simulink, JAVA, C/C++, TypeScript, HTML, Structured Text (PLC), YAML, XML, SQL  
**Technologies:** AWS, Big Query, Grafana, Influxdb, Wireguard, MQTT, REST, Docker, Linux, SCADA, MODBUS, OPC, ARM, GIT, Polarion

**Frameworks:** FastAPI, Django, pytest, opencv, pymodbus, Angular cli

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