

# Gustav Vallinder

## Industrial PhD Student

gvallinder@outlook.com ↗  
linkedin.com/in/gvallinder ↗  
gvallinder.github.io ↗

## Experience

### **Industrial PhD Student, Scania CV AB / KTH Royal Institute of Technology**

October 2022 - Present | Södertälje / Stockholm, SE

- Conducting motion control research in the AllDrive project to enable safe autonomous driving of semi-trailer trucks in winter conditions.
- Developing friction-aware motion control algorithms and software for testing at winter proving grounds in northern Sweden.
- Collaborating cross-functionally with students, researchers and engineers in industry and academia.

### **Software Developer, Epiroc Rock Drills AB**

August 2021 - September 2022 | Örebro, SE

- Developed control, obstacle avoidance and localization features for autonomous underground mining trucks and LHDs.
- Improved the performance of vehicles at customer sites through tuning, in-vehicle tests and analysis of log data.

## Education

### **MSc in Electrical Engineering, Uppsala University**

August 2016 - October 2021 | Uppsala, SE

- Specialization on systems and control with courses in control theory, signal processing, embedded systems, machine learning, and optimization.
- Spent a year as an exchange student in Germany at the Technical University of Munich.
- Did master thesis with Epiroc to improve speed and accuracy of autonomous LHDs using path following model predictive control.

## Skills

### **Interests**

Autonomous Systems, Vehicle Dynamics, Model Predictive Control, Modelling and Simulation, State Estimation.

### **Software**

MATLAB/Simulink, C++, Python, Linux, Git, Jira.

## Merits

### **Memberships**

Affiliated PhD Student, WASP Graduate School.

Member, SVEA Swedish Vehicular Engineering Association.

### **Awards**

Forsmark Kraftgrupp AB Scholarship, 2015.