



AUSTIN HARRIS

austinmharris@gmail.com / H: 707-227-4566
Linkedin.com/in/austin-masaki-harris

SUMMARY

Motivated, quick-learning Hardware Engineer proficient in failure analysis & resolution, hardware testing, and systems debugging for autonomous vehicle technologies. Looking to continue growing and learning within the innovative AV space.

SKILLS

- Root cause analysis
- Data analysis with Python
- CAN systems analysis (Intrepid CS)
- Process improvements
- Issue resolution & tracking (JIRA)
- Hardware development lifecycles
- Hardware systems integration
- Microsoft Word, Excel, Powerpoint
- Google Docs, Sheets, Slides

EXPERIENCE

Hardware Reliability Engineer / GM Cruise, LLC - San Francisco, CA

08/2018 - Current

- Developed streamlined **issue response protocol** and **JIRA dashboards** to give engineers automatic visibility into fleet & vehicle level issues, reducing time to respond by **40%**
- Created **OBDII DTC** sorting/scanning tool in **Python** to reduce data acquisition time from **20 minutes to 20 seconds**
- Performed Root Cause Analysis (**RCA**) to diagnose & fix RMA issues on GM **CAN modules**, and communicated performance requirements, failure modes, and reliability issues to GM engineers
- Conducted **CAN analysis** using Intrepid Control Systems' **VehicleSpy**
- Key player in engineering **hiring pipeline**, successfully signing & on-boarding 5 interns and 6 full-time engineers in 8 months

Vehicle Engineering Intern / GM Cruise, LLC - San Francisco, CA

06/2017 - 09/2017

- Conducted power draw analysis to address battery draining issue on autonomous infotainment screen, which led to realistic **performance requirements** & a **design change** in the next generation AV hardware
- Performed **RCA** of various AV drivability problems, deftly jumping between the hardware and software worlds
- Developed **sensor calibration** quality script in **Python** to be able to visualize quality & repeatability of **LiDAR, RADAR, & camera** calibrations
- Presented **capstone project** (sensor calibration quality script) to company (~300 people) to conclude internship

Personal Projects / Self - Sonoma, CA

11/2014 - 05/2016

- **Designed & fabricated** custom drift trike using Harbor Freight engine. **Autodesk Inventor** was used to model and perform **FEA**. Created research poster and presented to panel of professors
- Achieved **54% increase** in highway MPG with automatic to manual transmission swap on 1986 Ford Bronco, which required modifying shift pan, hose routing, pedal box, and clutch slave/master cylinder locations to accept new transmission
- **Fabricated** drag racing kart using Kawasaki KX500 engine on custom chassis. Achieved top speed of **117 mph**

and 0-60 mph time of **2.3 seconds**

EDUCATION AND TRAINING

University of California - Davis - Davis, CA

2018

Bachelor of Science: Mechanical Engineering

Suspension Team member UC Davis, Formula SAE

HOBBIES

- Intrepid mountain biker
- Avid skier
- Camping/backpacking enthusiast
- Car & motorcycle fanatic
- Craft beer appreciator