



2021 CPS V&V GRAND PRIX

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SIEMENS

● | ● I M A N D R A

HRL
LABORATORIES



 **BOEING**

amazon.com[®]

TOYOTA

MIT-IBM Watson AI Lab

 **BOSCH**
Invented for life

JUDGES AND PRIZE ACKNOWLEDGMENTS

Christof Budnik + Georgi Markov
Siemens



Grant Passmore
Imandra AI



Tomoya Yamaguchi + Bardh Hoxha
Toyota



Alwyn Goodloe
NASA

Thomas Heinz
Bosch



Nathan Fulton
IBM

Aleksey Nogin
HRL

Nima Roohi
Amazon



Huafeng Yu
Boeing

PROJECTS



“Creating Shapes in the Sky: Distributed Formation Control of Drones”

-Allison Lo and Andrew Stange



“Proving Lunar Autonomous Micro-Roving Missions Will Succeed”

-Varsha Kumar



PROJECTS

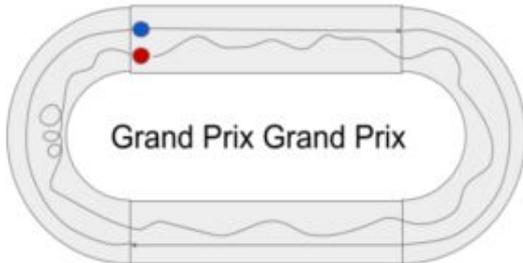
“Driving along Forbes Avenue ”

-Eric Yang



“Improvements to the Responsibility Sensitive Safety Model for Self-Driving Cars”

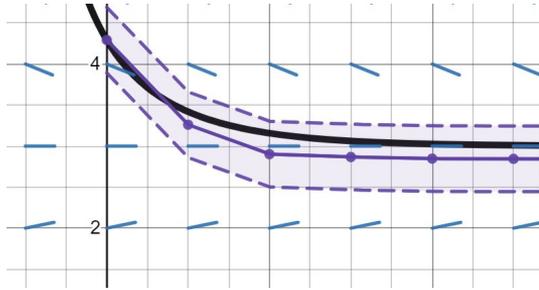
-Megan Strauss



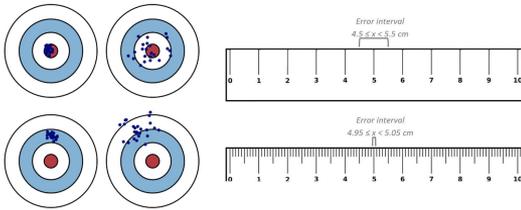
“Grand Prix Grand Prix”

-Evan Lohn

PROJECTS



Controller Aware dL



“Numerical Extension to ODEs in KeYmaera X”

-Evelyn Kuo

“Controller Aware dL”

-Joshua Klune

“Minimizing Sequents to Find Modeling Errors in KeYmaera X “

-Ben Gafford and Myra Dotzel



Modeling mistakes happen!

Don't let them get the best of you.

PROJECTS



“Modeling an Adversarial Poacher-Ranger Hybrid Game”

-Maia Iyer and Benjamin Gilby



“Applying Hybrid Dynamic Logic for use in Games”

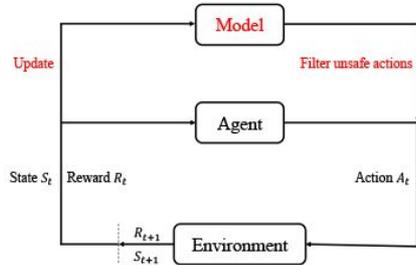
-Manan McCoy

PROJECTS



“Driven Oscillations of a Car Suspension”

-Sacha Bartholme



“Learnable Model Verification through Reinforcement Learning”

-Yao Feng and Anita Li

PRIZES



**Apple Watch Series 6 - 44mm
(2 available)**

Prize Sponsored by Siemens



**Intel RealSense Depth Camera D455
(2 available)**

Prize Sponsored by Toyota

PRIZES



**DRONEEYE 4DF6 RC Foldable FPV Quadcopter Drone
(1 available)**

Prize sponsored by Imandra



**Echo Show 5 | Glacier White
available)**

Prize Sponsored by Amazon

(2

PRIZE SELECTION

| Company Sponsor | Prize | # of prizes | Student #1 | Student #1 |
|-----------------|--|-------------|------------|------------|
| Siemens | Apple Watch Series 6 44mm w/ Milanese Loop  | 2 | | |
| Toyota | Intel RealSense Depth Camera D455  | 2 | | |
| Bosch | Bosch Power Tools Combo Kit GXL12V-310B22  Bosch GLM165-25G Green-Beam 165 Ft. Laser Measure  | 2 | | |
| Imandra | DRONEEYE 4DF6 RC Foldable FPV Quadcopter Drone  | 1 | | X |
| Amazon | Echo Show 5 Glacier White  | 2 | | |

