Nicolas Brissonneau

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Experience

Designing a solution for robots to paint (GRA)   2020
ExxonMobil – Austin

- Designing and 3d printing robotics interfaces
- Implementing control laws in simulation and hardware

Teaching Assistant   2019-2020
University of Texas – Austin

Teaching and supporting ~90 undergraduate students in dynamics and control classes

Designing control laws for exoskeleton (GRA)   2017-2019
Apptronik – Austin

- Safe and robust force amplification
- Modeling and testing of human-exoskeleton interactions

RoboCup@Home competition with HSR (Human Support Robot)   2017
Nagoya – Japan

- Vision, mapping, manipulation
- Team effort lead us to 3rd place

Internship and projects: 2015-201
- o *Development of a Smart Pen*
- o *Sizing of a Series Elastic Actuator*
- o *R&D Engineer Assistant, AGV design*

Academia

University of Texas, Austin   *2017-2019*
Robotics Systems and Control – Master's degree

- Robust control law design
- Linear systems analysis, physical simulation, modeling, cognitive models
- Research on human-inspired impedance controllers
- Machine learning methods: QL, PCA, ICA, GP, Backpropagation

UPMC – SORBONNE UNIVERSITES (Paris VI)   *2016-2017*
Advanced Systems and Robotics – Master's degree

- Mobile Robotics, Multi-body Systems Mechanics, Advanced Control Law
- Augmented Reality, Vision, Simulation, Haptic interfaces

ARTS ET METIERS, Paris Institute of Technology   2011-2016
Engineering Diploma – Expertise in Mechatronics

- Mechatronics: Dynamics, State Estimation, Control Law
- Mathematics: Advanced Algebra, Function Analysis and Probabilities
- Physics: Electronics, Thermodynamics, Mechanics
- Science of Engineering: Mechanical and Electrical systems
- Production, Industrial processes

Additional skills

Machine learning online *Coursera class* – *Stanford University*

Software*: ROS, C++, Python, Gazebo, Dart, Labview, Matlab, Catia, Solidworks*