Nicolas Brissonneau

406 W 30th Street, Austin, 78705 TX
P: 512 650 6359
E: brissonneau.nicolas@gmail.com

Experience

Designing a solution for robots to paint (GRA) **2020**
ExxonMobil – Austin
- Designing and 3d printing robotics interfaces
- Implementing working control laws in simulation and hardware

Teaching Assistant **2019-2020**
University of Texas – Austin
Teaching and supporting ~90 undergraduate students in dynamics and control theory

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

Development of a Smart Pen **2016**
Arts et Métiers ParisTech – Paris, France
Designing a Smart Pen able to recognize 3D writing and convert it to text in MS Word

Sizing of a Series Elastic Actuator (SEA) **2015**
Arts et Métiers ParisTech – Lille, France
- Define Requirement Specifications, make Technological choices
- Simulate the system on Matlab & Simulink, Establish a sizing protocol

R&D Engineer Assistant **2015**
Akeoplus – Château Gaillard, France
- Designing an Automated Guided Vehicle (AGV)
- Vision, mapping, pathfinding algorithms and IHM designs

Education and qualifications

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

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: Thorough studies of existing Mechanical and Electrical systems
- Production, Industrial processes

Additional skills and achievements

Machine learning *: Online courses –* ***Stanford University (Coursera)***
Computer skills *: ROS,C++,Python, Labview, Matlab, Catia, Solidworks, Gazebo, Dart*