

## Education

- William Marsh Rice University** Houston, TX, USA  
*Ph.D. student in Computer Science, Advisor: Dr, Lydia Kavraki* *Aug. 2017 – Present*
  - 8 Semesters Completed,
  - Research Areas: Learning and Robotics, Representation Learning, Motion Planning
- Aristotle University of Thessaloniki** Thessaloniki, Greece  
*Diploma in Electrical and Computer Engineering* *Sep.2011 – Apr.2017*
  - Graduated with 'Excellent', **8.86/10** cumulative average (Top 2%)
  - Thesis: Structural Analysis of Handwritten Equations Using Probabilistic Context-Free Grammars

## Research Experience

- Kavraki Lab, <http://kavrakilab.org/>** Rice University, Houston  
*Graduate Student* *Aug. 2017 – Present*
  - Authored research papers in Robotic Learning.
  - Developed open-source software for education and research purposes.
- TracLabs Robotics Group, <https://traclabs.com/>** TracLabs, Houston  
*Research Intern* *Jul. 2019 – Aug. 2019*
  - Integrated a motion planning framework (OMPL) with existing infrastructure (CRAFTSMAN)
  - Investigated experience-based planning in an industrial manipulation problem.
- Pandora Robotics Group, <http://pandora.ee.auth.gr/>** Aristotle University, Thessaloniki  
*Software Engineer and Tester* *Sep. 2013 – Feb. 2015*
  - Mapped robot's georeferenced track and surrounding environment in a 2D geotiff (Qt, C++)
  - Developed an online diagnostic tester for ROS nodes

## Open Source Software

- Pyre Library** <https://github.com/KavrakiLab/pyre>  
*Core Developer/Maintainer* *April 2021 – present*
- Robowflex Library** <https://github.com/KavrakiLab/robowflex>  
*Core Contributor* *March 2019 – present*
- The Open Motion Planning Library (OMPL)** <http://ompl.kavrakilab.org/>  
*Contributor* *Jul. 2019 – present*

## Awards, Nominations and Fellowships

- ICRA 2021 Best Paper nomination in Cognitive Robotics (Top-4)** Rice University, Houston  
*Nominated to relevant papers in a competitive basis* *Jun. 2021*
- NSF Graduate Research Fellowship** Rice University, Houston  
*Awarded to outstanding graduate students in the US in STEM* *May. 2019*
- ICRA 2019 Travel Grant** Rice University, Houston  
*Awarded to attendees in a competitive basis* *Mar. 2019*
- Hellenic Professional Society of Texas Scholarship** Rice University, Houston  
*Awarded to students with Greek Origins for Academic Excellence* *Jan. 2018*

## Publications

- [1] C. Chamzas, C. Quintero-Peña, Z. Kingston, A. Orthey, D. Rakita, M. Gleicher, M. Toussaint, L. E. Kavraki “MotionBenchMaker: A tool to Generate and Benchmark Motion Planning Datasets” *IEEE Robotics and Automation Letters (RAL)*, 2022.
- [2] M. Moll, C. Chamzas, Z. Kingston, L. E. Kavraki “HyperPlan: A Framework for Motion Planning Algorithm Selection and Parameter Optimization” *In IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2021.
- [3] Z.Kingston, C. Chamzas, L. E. Kavraki “Using Experience to Improve Constrained Planning on Foliations for Multi-Modal Problems” *In IEEE/RSJ International Conference on Intelligent Robots and Systems(IROS)*, 2021.
- [4] C. Chamzas, Z. Kingston, A. Shrivastava, L. E. Kavraki “Learning sampling distributions using local 3D workspace decompositions for motion planning in high dimensions” *IEEE International Conference on Robotics and Automation (ICRA)*, 2021. **Top-4 finalist for best paper in Cognitive Robotics**
- [5] C. Quintero-Peña\*, C. Chamzas\*, V.Unhelkar, L.E.Kavraki “Motion Planning via Bayesian Learning in the Dark” *In ICRA2021: Workshop on Machine Learning for Motion Planning*, 2021.
- [6] E. Pairet, C. Chamzas, Y. Petillot, L. E. Kavraki “Path Planning for Manipulation using Experience-driven Random Trees” *IEEE Robotics and Automation Letters (RAL)*, 2021.
- [7] D. Chamzas, C. Chamzas, K. Moustakas “cMinMax: A Fast Algorithm to Find the Corners in an N-dimensional Convex Polytope” *International Conference on Computer Graphics Theory and Applications (GRAPP)*, 2021.
- [8] C. Chamzas\*, M. Lippi\*, M. C. Welle\*, A.Varava, A.Marino, D. Kragic, L.E.Kavraki “Structuring Latent Representation with Minimal Supervision for Robotic Tasks ” *3rd Robot Learning Workshop in NeurIPS*, 2020.
- [9] C. Chamzas, A. Shrivastava, L. E. Kavraki “Using Local Experiences for Global Motion Planning,” *IEEE International Conference on Robotics and Automation (ICRA)*, 2019.

## Teaching Experience

- **Algorithmic Robotics (COMP 450/550)** Rice University, Houston  
*Guest Lecturer* Nov. 2021
- **Artificial Intelligence (COMP 440/557)** Rice University, Houston  
*Teaching Assistant* Aug. 2019 – Dec. 2019
- **Probabilistic Algorithms and Data Structures (COMP 480/580)** Rice University, Houston  
*Teaching Assistant* Jan. 2019 – May 2018
- **Algorithmic Robotics (COMP 450/550)** Rice University, Houston  
*Teaching Assistant* Aug. 2018 – Dec. 2018
- **Rice DataScience Bootcamp** Rice University, Houston  
*Teaching Assistant* Aug. 2018
- **Statistical Machine Learning (COMP 440/540)** Rice University, Houston  
*Teaching Assistant* Jan. 2018 – May. 2018

## Languages

**Greek:** Mother Tongue

**English:** Level: C2(Excellent)

**German:** Level: B2(Good)