

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 -0 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] 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.
- [2] 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.
- [3] 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**
- [4] 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.
- [5] 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.
- [6] 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.
- [7] 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.
- [8] 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 - . 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)