

Brandon Hans Meng

PH.D. IN COMPUTER AND INFORMATION SCIENCES

Jarvis College of Computing and Digital Media
DePaul University, Chicago, IL 60604.

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Research Interests

My research develops sampling- and graph-based motion planning algorithms for high-dimensional systems in dynamic environments, with attention to kinematic constraints, timing, and uncertainty. My dissertation addresses continuum arms; I am extending this work toward coordinated multi-manipulator planning and toward integrating learning with model-based methods.

Education

DePaul University

PHD COMPUTER & INFORMATION SCIENCES

Chicago, IL, USA

Sep. 2019 - Jun. 2026

- Advisor: Iyad Kanj
- Dissertation: [Path Planning for Continuum Arms](#)
- Degree Conferred June 2026

DePaul University

MS COMPUTER SCIENCE

Chicago, IL, USA

Mar. 2018 - Jun. 2019

- Advisor: Iyad Kanj
- Thesis: Machine-Learning Based Approach for Efficient Path Planning of Continuum Co-Robotic Arms

DePaul University

BS COMPUTER SCIENCE

Chicago, IL, USA

Sep. 2014 - Mar. 2018

- Concentration in Software Development, Minor in Mathematical Science

Publications

PEER-REVIEWED JOURNAL ARTICLES

- J1. **B. H. Meng**, I. S. Godage, and I. Kanj, "RRT*-Based Path Planning for Continuum Arms," in *IEEE Robotics and Automation Letters*, vol. 7, no. 3, pp. 6830–6837, July 2022, doi:[10.1109/LRA.2022.3174257](https://doi.org/10.1109/LRA.2022.3174257)

PEER-REVIEWED CONFERENCE ARTICLES

- C1. **B. H. Meng**, D. D. K. Arachchige, I. S. Godage, and I. Kanj, "Path Planning for Continuum Arms in Dynamic Environments," in *2024 IEEE 7th International Conference on Soft Robotics (RoboSoft)*, San Diego, CA, USA, pp. 900–905, 2024, doi:[10.1109/RoboSoft60065.2024.10521950](https://doi.org/10.1109/RoboSoft60065.2024.10521950)
- C2. **B. H. Meng**, D. D. K. Arachchige, J. Deng, I. S. Godage, and I. Kanj, "Anticipatory Path Planning for Continuum Arms in Dynamic Environments," in *2021 IEEE International Conference on Robotics and Automation (ICRA)*, Xi'an, China, pp. 7815–7820, 2021, doi:[10.1109/ICRA48506.2021.9560952](https://doi.org/10.1109/ICRA48506.2021.9560952)
- C3. **B. H. Meng**, I. S. Godage, and I. Kanj, "Smooth Path Planning for Continuum Arms," in *2021 IEEE International Conference on Robotics and Automation (ICRA)*, Xi'an, China, pp. 7809–7814, 2021, doi:[10.1109/ICRA48506.2021.9560982](https://doi.org/10.1109/ICRA48506.2021.9560982)
- C4. J. Deng, **B. H. Meng**, I. Kanj, and I. S. Godage, "Near-optimal Smooth Path Planning for Multisection Continuum Arms," in *2019 2nd IEEE International Conference on Soft Robotics (RoboSoft)*, pp. 416–421, 2019, doi:[10.1109/ROBOSOFT.2019.8722778](https://doi.org/10.1109/ROBOSOFT.2019.8722778)

JOURNAL ARTICLES - IN REVIEW

- J2. **B. H. Meng**, I. S. Godage, and I. Kanj, "Anticipatory Joint-space Planning for Continuum Arms in Dynamic Environments," submitted to *IEEE Robotics and Automation Letters (RA-L)*, 2026.

CONFERENCE ARTICLES - IN PREPARATION

- C5. **B. H. Meng**, I. S. Godage, and I. Kanj, "Dual-Arm Path Planning for Continuum Manipulators" To be submitted to 2027 IEEE ICRA

Professional Experience

2024 - Now **Adjunct Faculty**, Jarvis College of Computing & Digital Media, School of Computing, DePaul University, USA
2021, 2023 **Teaching Assistant**, Jarvis College of Computing & Digital Media, School of Computing, DePaul University, USA
2018 - 2019 **Graduate Tutor**, Jarvis College of Computing & Digital Media, School of Computing, DePaul University, USA
2017 - 2018 **Summer Intern**, United Airlines, Chicago, IL, USA
2016 - 2016 **Research Intern**, Discovery Lab Global, Columbus, OH, USA

Peer Reviewer Experience

J. IEEE Robotics and Automation Letters (RAL), IEEE Transactions on Automation Science and Engineering (TASE)
C. IEEE International Conference on Robotics and Automation (ICRA), IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), IEEE International Conference on Soft Robotics (RoboSoft)

Awards and Scholarships

2019–2024 **GAANN Fellowship**, Federal doctoral fellowship, fully funded *DePaul Uni.*
2014–2018 **Presidential Scholarship**, Merit-based undergraduate award, partially funded *DePaul Uni.*

Teaching Experience

2024–2026 **Instructor of Record, CSC 241/242: Introduction to Computer Science I & II**, 6 sections *DePaul Uni.*
2021, 2023 **Assistant Lecturer, CSC 321: Design and Analysis of Algorithms**, 2 sections *DePaul Uni.*
2018–2019 **Graduate and Undergraduate Tutor, Computer Science**, *DePaul Uni.*

Presentations

2024 “Path Planning for Continuum Arms in Dynamic Environments”, IEEE RoboSoft *San Diego*
2022 “RRT*-Based Path Planning for Continuum Arms”, IEEE ICRA *Philadelphia*
2021 “Anticipatory Path Planning for Continuum Arms”, IEEE ICRA *Xi'an, China*
2021 “Smooth Path Planning for Continuum Arms”, IEEE ICRA *Xi'an, China*

Technical Expertise

- **Programming:** Python, C++, Java, Scala, Javascript, SQL
- **Robotics and Planning:** OMPL, Boost, sampling-based and graph-based motion planning
- **Scientific Computing:** Numpy, SciPy, Eigen, NLOpt, MATLAB, PyTorch, OpenCV
- **Visualization and Prototyping:** Matplotlib, Three.js, Blender, Arduino, Raspberry Pi

References

- R1. [Iyad Kanj](#) — Doctoral Advisor
Associate Dean and Professor, School of Computing, DePaul University
ikanj@depaul.edu · +1 (312) 362-8381
- R2. [Isuru Godage](#) — Doctoral Research Mentor
Assistant Professor, Engineering Technology & Industrial Distribution, Texas A&M University
igodage@tamu.edu · +1 (979) 845-6027
- R3. [Amber Settle](#) — Teaching Mentor
Professor, School of Computing, DePaul University
asettle@cdm.depaul.edu · +1 (312) 362-5324
- R4. [Dimuthu Kodippili Arachchige](#) — Collaborator
Assistant Professor, School of Science, Hampton University
dimuthu.arachchige@hamptonu.edu