

Amit Kumar Bedaka

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ABOUT ME

Innovative Robotics Engineer with a Ph.D. in Mechanical Engineering and over six years of experience in developing and managing CAD-based offline programming software for industrial robots. I have a proven track record in leading research projects, developing advanced algorithms, and enhancing robotic performance in dynamic environments. Actively seeking new opportunities to leverage my skills and expertise to drive the success of dynamic projects.

EXPERIENCE

- Lead Scientist** Full-time
Chordata Motion, Barcelona, Spain May 2022 - May 2024
 - Managed and developed advanced algorithms for trajectory generation using sensor fusion techniques, enhancing IMU-based data precision and efficiency.
 - Led the implementation of an indoor positioning system using VSLAM and the RealSense D435i camera, enhancing spatial tracking accuracy.
 - Spearheaded innovative research projects, resulting in the development of sustainable processes and continuous system improvements.
- Postdoctoral Researcher** Full-time
National Taiwan University of Science and Technology, Taipei, Taiwan April 2019 - May 2022
 - Led the innovation of autonomous offline programming platforms for industrial applications, achieving a 30% boost in performance and efficiency through strategic algorithm optimization.
 - Initiated and led research projects, collaborating with academia and industry partners to drive innovation in robotic systems.
 - Upheld project excellence by strictly adhering to engineering principles and standards, reflecting a deep commitment to quality and integrity in product development.

EDUCATION

- National Taiwan University of Science and Technology** Taipei, Taiwan
Doctor of Philosophy - Mechanical Engineering; GPA: 3.89/4 Sept 2014 - Jan 2019
- Indian Institute of Information Technology, Design & Manufacturing** Chennai, India
Master of Design - Mechanical System Design; GPA: 8.27/10 July 2012 - May 2014
- Visvesvaraya Technological University** Belgaum, India
Bachelor of Engineering - Mechanical Engineering; %: 73.93 July 2006 - June 2010

CERTIFICATIONS

- ROS for Beginners: Basics, Motion, and OpenCV.**
- Scientific Computing with NumPy - Python Data Science.**
- Complete Guide to NumPy and Pandas.**
- Project Management Course** - ACCIO, Barcelona, Spain.
- Commercialising Technology Course** - ASTP, Barcelona, Spain.

SKILLS SUMMARY

- Technical Expertise:** Advanced understanding of motion planning algorithms, robot kinematics, and control systems in dynamic environments.
- Programming Languages:** C++, Python, Matlab, Bash scripting.
- Robotic Frameworks & Tools:** ROS, MoveIt, Gazebo, RViz, OpenRAVE, RobotStudio, MotoSim.
- Product Design & Development:** Extensive experience in CAD-based offline programming, and product design using SolidWorks, CATIA, and Inventor.

AWARDS AND ACHIEVEMENTS

- Awarded Marie Sklodowska-Curie fellowship as part of the Tecniospring project, Barcelona, Spain.
- Delivered a technical talk on "Robotics and Automation" at Hirasugar Institute of Technology, India.
- Served as the Indian cultural association president at National Taiwan University of Science and Technology, Taiwan.
- Awarded Research Scholarship by National Taiwan University of Science and Technology, Taiwan.
- Shortlisted in the top 7 national levels 'Students Mechanism Design' contest held at IIT Roorkee, India.
- Secured 3rd place in a design competition conducted by IIITDM Kancheepuram, India.

PATENT

- Chyi-Yeu Lin, Amit Kumar Bedaka, Welding System and Welding Parameter Optimization Method, Patent No.: TWI764130.