

Michał Staniaszek

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github.com/heuristicus

EXPERIENCE

DPhil Candidate at GOALS GROUP, OXFORD ROBOTICS INSTITUTE, UNIVERSITY OF OXFORD, Oxford, UK <ul style="list-style-type: none">Analysed methods of integrating time into planning with Markov Decision Processes (MDPs).Ran long-term deployments of Spot, including with the UK Atomic Energy Authority at the JET fusion reactor.Consulted for external companies to help them use our autonomy system in practical applications.Built more user-friendly internal tools to make building and simulation of MDPs simpler.Engaged in public outreach, including operating Spot during the 2023 Royal Institution Christmas Lectures.	OCT 2022 to PRESENT
Robotics Software Engineer at OXFORD ROBOTICS INSTITUTE, UNIVERSITY OF OXFORD, Oxford, UK <ul style="list-style-type: none">Lead developer on robot-agnostic autonomy system used across the institute on Spot, Scitos X3, HSR, and Jackal.Responsible for integration of hardware and software capabilities on Spot. Improved the <code>spot_ros</code> package.Refined internal Spot risk assessment and developed additional safety software and hardware with the hardware team.Ran trials and demonstrations of Spot to the public, project funders, and industry, including nuclear and construction.Assisted development on the <i>Frontier</i> mapping device, integrating onto robots and automating software setup.Created <code>procman_ros</code>, porting the existing distributed process manager package to ROS and GTK3+.	Nov 2019 to OCT 2022
Research Assistant at VISION FOR ROBOTICS GROUP, TECHNISCHE UNIVERSITÄT WIEN, Vienna, Austria <ul style="list-style-type: none">PhD candidate and teaching assistant, working on semantic segmentation and mapping for long-term robot autonomy.Reviewed literature on 3d segmentation and SLAM, evaluated performance of various state of the art algorithms.	JUN 2017 to JAN 2019
STRANDS Project Research Associate at UNIVERSITY OF BIRMINGHAM, Birmingham, UK <ul style="list-style-type: none">On-site support for robot deployment, assisting project partners setting up and debugging their code on the Scitos G5.General linux hardware and software support, network configuration and status monitoring.Created RViz tools and panels to display and quickly and easily modify the graph-based autonomy system.Implemented scripts for robot startup and easier creation of task routines for long-term autonomy.Improved software package documentation, scripted aggregation of documentation from all project repositories.	OCT 2016 to MAY 2017
Innovation Team Intern at YUJIN ROBOT CO., LTD, Seoul, Republic of Korea <ul style="list-style-type: none">Co-design and implementation of the <code>py_trees</code> package and visualisation, now a popular Python behaviour tree library.Behaviour design, diagnostics, simulation layer implementation, and module interfacing in ROS for the GoCart robot.Helped with ROS integration of web interface packages for robot control using REST and Celery.Contributed to open source ROS packages <code>diagnostic_aggregator</code> and <code>audio_common</code>.	JUL 2015 to JAN 2016

EDUCATION

DPhil Engineering Science , Oxford Robotics Institute KEBLE COLLEGE, UNIVERSITY OF OXFORD, Oxford, UK Research focus: <i>Long-Horizon Temporal Planning Under Uncertainty for Industrial Robotics</i>	OCT 2022 to PRESENT
MSc Systems, Control and Robotics , Robotics and Autonomous Systems track KTH ROYAL INSTITUTE OF TECHNOLOGY, Stockholm, Sweden Thesis: <i>Feature-Feature Matching for Object Retrieval in Point Clouds</i>	AUG 2013 to JUN 2015
BSc (Hons) Computer Science with Study Abroad , First Class Honours UNIVERSITY OF BIRMINGHAM, Birmingham, UK Thesis: <i>Time Delay Estimation in Gravitationally Lensed Photon Streams</i> Study abroad: Japanese Language Programme , KEIO UNIVERSITY, Tokyo, Japan	SEP 2009 to JUN 2013

PUBLICATIONS

Staniaszek , Bruder Müller, You, Bhattacharyya, Lacerda, Hawes. <i>Difficulty-Aware Planning for Time-Bounded Mobile Robot Missions</i> , in: ECMR 2023 Special Issue, Robotics and Autonomous Systems (RAS)	UNDER REVIEW
Staniaszek , Bruder Müller, Bhattacharyya, Lacerda, Hawes. <i>Difficulty-aware Time-Bounded Planning Under Uncertainty for Large-Scale Robot Missions</i> , in: European Conference on Mobile Robots (ECMR)	JULY 2023
Street, Lacerda, Staniaszek , Mühlhig, Hawes. <i>Context-Aware Modelling for Multi-Robot Systems Under Uncertainty</i> . International Conference on Autonomous Agents and Multi-agent Systems (AAMAS)	MAY 2022

COMMUNITY AND CIVIL SOCIETY

Welfare Officer for KEBLE COLLEGE MIDDLE COMMON ROOM <ul style="list-style-type: none">Organised welfare events for Keble's graduate community, including weekly brunch attended by over 40 people.	JUL 2023 to PRESENT
Presiding Officer for OXFORD CITY COUNCIL ELECTIONS <ul style="list-style-type: none">Responsible for running a polling station on election day, including security of the ballot.Collected ballot boxes, set up the station, provided ballots to voters, answered questions about voting process.	MAY 2021
Assistant Observer at DEMOCRACY VOLUNTEERS <ul style="list-style-type: none">Observed for elections in the UK, and EU, visited polling stations to record data and check compliance with regulations.Co-wrote a report on 2020 US election in Georgia, summarising local media, legal cases, and social media reactions.	MAY 2019 to JAN 2021
Warehouse Volunteer at FARESHARE LONDON <ul style="list-style-type: none">Categorised and arranged incoming food in the warehouse, gathered food orders for distribution to charities.	APR 2019 to NOV 2019

TEACHING

Teaching Assistant at VISION FOR ROBOTICS GROUP, TECHNISCHE UNIVERSITÄT WIEN <ul style="list-style-type: none">Administered the Masters' <i>Machine Vision and Cognitive Robotics</i> and Bachelors' <i>Robotics and Computer Vision</i> courses.Updated and maintained assignment content, managed tutors, graded assignments, and provided assistance to students.	JUN 2017 to JAN 2019
Robot Programming Demonstrator at UNIVERSITY OF BIRMINGHAM <ul style="list-style-type: none">Discussed theoretical and software problems with students to help them understand the AI concepts being taught.Helped students work together as teams to complete assignments, and graded them based on live demonstrations.	JAN 2017 to APR 2017

SCHOLARSHIPS AND AWARDS

Computer Science Prize & Research Committee Project Prize at UNIVERSITY OF BIRMINGHAM <ul style="list-style-type: none">School of Computer Science award for the top final year student, and best research project thesis.	JUL 2013
Nuffield Undergraduate Research Bursary at UNIVERSITY OF BIRMINGHAM <ul style="list-style-type: none">Bursary to support a summer research project to investigate particle filter localisation for AUVs.	JUL 2011

PROGRAMMING AND SOFTWARE

Python, ROS, git, Linux, bash, C++, ~~LaTeX~~
Public repositories at github.com/heuristicus

LANGUAGES

English (native), Japanese (good), Polish (good)
German (basic)