AIDAN SCANNELL

PhD Researcher

www.aidanscannell.com | scannell.aidan@gmail.com | +44 787 558 3912 | Bristol, UK
aidanscannell | aidan-scannell-82522789/

EXPERIENCE

PhD Researcher

University of Bristol

Sept 2018 – Ongoing | Bristol, UK

Researching data-efficient learning for the control of robotic systems. EPSRC Centre for Doctoral Training in Future Autonomous and Robotic Systems (FARSCOPE).

Probabilistic modelling | Gaussian processes | Variational inference | Model-based reinforcement learning | Optimal control

Teaching Assistant

University of Bristol

Sept 2018 – Ongoing | Bristol, UK

Alongside my PhD I have assisted the teaching of,

- Machine Learning COMS30007
- Robotic Systems COMSM0012
- Intelligent Information Systems EMATM0042

Communication | Active Listening

PROJECTS

Identifiable Mixtures of Sparse Variational Gaussian Process Experts

University of Bristol

Sept 2018 - Ongoing | Bristol, UK

- Improving scalability in the Mixtures of Gaussian Process Experts model with Gaussian process based gating networks.
- Variational inference based on sparse GP approximations.
- aidanscannell/mogpe

GPflow | TensorFlow | Gaussian processes | Variational inference

Trajectory Optimisation in Learned Multimodal Dynamical Systems

University of Bristol

Sept 2019 - Ongoing | Bristol, UK

- Learning multimodal probabilistic transition dynamics.
- Trajectory optimisation that finds trajectories that 1) remain in a desired dynamics mode 2) whilst avoiding regions of the dynamics with high epistemic uncertainty.
- aidanscannell/trajectory-optimisation-in-learned-multimodal-dynamical-systems

JAX | Probabilistic geometries | Optimal control

SKILLS

Python | NumPy | SciPy | Matplotlib | GPflow | TensorFlow | JAX | GPy

Java | C++ | MATLAB | ROS

Git/GitHub | LaTeX | Org-mode

EDUCATION

Ph.D. in Bayesian Machine Learning for Robotic Control

University of Bristol

Sept 2018 - Ongoing

M.Res. in Robotics & Autonomous Systems

University of Bristol | First Class Honours

Sept 2017 – Sept 2018

Thesis title: Extending BDI Agents to Model and Reason with Uncertainty

M.Eng. in Mechanical Engineering

University of Bristol | First Class Honours

Sept 2012 – June 2016

ACHIEVEMENTS

Full Sporting Colours
Awarded full colours for outstanding achievements in snowboarding.

Starting To Teach
Acquired the knowledge and skills to establish myself as a confident, enthusiastic and effective teacher who is able to engage, encourage and develop students' learning.

Bristol Plus Award
For undertaking a wide range of tasks to further enhance student skills - only 700 out of 23000 achieved this awards per annum.

VOLUNTEERING

Cohort Year Rep
FARSCOPE CDT

Sept 2018 - Ongoing Bristol, UK

Communication | Interpersonal Skills

Club Leader
Code Club

Dec 2017 - April 2018 Bristol, UK

I collaborated with Code Club and Bristol Libraries to set up and run a Code Club for young people aged 9-13 at Junction 3 Library in Easton, Bristol.

Leadership | Teaching

Technical Lead (Drivetrain)
Formula Student

Jan 2015 - Jan 2016 Bristol, UK

Each year, as part of Formula Student, students design, build and race a single seat race car.

- Finished 2nd in the National Class 2 competition in 2013/2014, I was then selected as the Drivetrain lead.
- This role improved my communication skills as I was leading weekly presentations.
- I developed my leadership skills through setting realistic objectives, effectively allocating work to the appropriate team members and monitoring outcomes.

Teamwork | Leadership | Time Management

Snowboard Captain
University of Bristol Snowsports Club

Jan 2014 - Sept 2015 Bristol, UK

- Organised multiple weekly training sessions, demonstrating my ability to plan and run events smoothly.
- Negotiated competitive prices for a growing member base within an inherently expensive sport.
- Responsible for aiding the smooth running of the club and helping to organise the annual university ski trip, with circa 1500 participants, working under pressure to manage people in high stress situations.
- Awarded the 'Team of the Year' award and full colours for my performances and contributions to the sport.

Teamwork | Leadership | Time Management

REFEREES

Prof. Arthur Richards
@ University of Bristol
Arthur.Richards@bristol.ac.uk

Dr. Carl Henrik Ek
@ University of Cambridge
che29@cam.ac.uk