# Oliver Withington

Email: owithington@hotmail.co.uk
Website: owithington.co.uk
Github: github.com/KrellFace
Address: London, SW2

I am an AI researcher working towards a PhD focused on the evaluation of digital level and environment generators for video games. My goal has been to develop novel algorithms and paradigms for visualising the output spaces of these generative systems so that their capabilities can be more easily understood and compared to those of alternatives. I am currently in my final year of a 4-year program, and through the past 3 years of work I have gained significant experience in all aspects of research production.

## Education

**September 2020 - Present:**
PhD Candidate, CDT in Intelligent Games & Game Intelligence (IGGI), Queen Mary University of London
- Conceived of and led on multiple projects and associated publications, gaining experience of multiple research production skills, including: literature review, system development, data analysis, academic writing and research presentation
- Additional experience gained in both lab demonstrating as well as essay marking on the Interactive Agents & Procedural Generation module
- Supervised by Laurissa Tokarchuk and Jeremy Gow

**October 2018 – September 2019:**
Computing and Information Systems MSc, Queen Mary University of London
Degree Classification: Distinction
- Thesis mark: 88%. Involved the development of a Java based algorithm testing platform, and was published as a poster at the Genetic and Evolutionary Computation Conference (GECCO). (doi.org/10.1145/3377929.3390043 )

## Lead Author Publications

- 'On the Evaluation of Procedural Level Generation Systems', Submitted to FDG 2024, Copy available on request
- 'The Right Variety: Improving Expressive Range Analysis with Metric Selection Methods' - FDG 2023
  - Paper received an Honourable Mention
- 'Visualising Generative Spaces Using Convolutional Neural Network Embeddings' - EXAG workshop at AIDE 2022
- 'Compressing and Comparing the Generative Spaces of Procedural Content Generators', Conference on Games 2022
- 'Illuminating super mario bros: quality-diversity within platformer level generation', Genetic and Evolutionary Computation Conference 2020

## Employment

**April 2018 – September 2018:**
ART Healthcare – Lead RPA Engineer
- Led a team in the design, development, deployment and support of Robotic Process Automation systems for our clients in the health sector
- Created the RPA team, which involved developing training programs, leading the training of new staff, and line managing junior team members

**January 2016 – March 2018:**
psKinetic – Analyst Software Engineer
- Position involved supporting live IT healthcare systems, including development and deployment of system improvements and liaising with clients

## Programming Languages

**Proficient:** Python, Java, C#
**Familiar:** SQL, R, HTML, Javascript

## Other Skills

- 3D modelling using Blender, with a focus on producing assets for games and interactive software
- Game development using Unity