

# Ruby Ferguson

## contact

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## programming

Python  
(Flask, OpenCV,  
PyGame, Robotics)  
Javascript (Node,  
three.js, Express,  
Angular, Koa, React),  
Java, C#, Arduino  
CSS3 & HTML5,  
LaTeX, Linux (Ubuntu,  
Arch)

## education

- Sept. 2016 - present **Undergraduate, Theoretical Physics MPhys** Lancaster University  
*Second Year - 21.5 (Current Average at time of writing)*  
*First Year - First Class*
- 2012-2015 **International Baccalaureate** Gresham's School, Holt, Norfolk  
*IB Higher Level: English - 7, Physics - 7, Maths - 5,*  
*Standard Level: Chemistry - 7, Latin - 6, History - 5,*  
*Theory of Knowledge/Extended Essay - 3. Total 40/45*
- 2009-2012 **GCSEs** Gresham's School, Holt, Norfolk  
*10 a\*, 1a, 1b*

## employment

- 1/7/16 - 1/9/16 **Neontribe, Norwich** Summer Job (Software Developer)  
*I worked on building tests "Great British Public Toilet Map", a project helping people locate public toilets. I then went on to write an application to analyse the data from the crowd-sourced positions and types of toilets across the UK.*
- 1/2/16 - 7/4/16 **Rebel Uncut, Birmingham** Freelance work (Software Developer).  
*I worked as a freelance developer through Rebel Uncut working on a project for Goodyear developing a game for them that encouraged young drivers to avoid distractions and quizzed them on elements of the highway code.*
- 1/6/15 - 12/9/15 **Neontribe, Norwich** Full Time Employment (Software Developer).  
*I led a small team developing a graphical and expandable solution which could be used by non-technical staff member to streamline their deployment process. I was working in Python and Flask with a Javascript front-end.*
- 22/11/14 - 29/5/15 **Switch Identity Governance, Norwich** Full Time Employment (Lead Developer).  
*I led a development team working on a number of projects exploring novel uses of Switch's technology including accounting packages and telecommunications applications in addition to developing applications in Node (MEAN stack) and Python.*

## awards

2014	<b>iDEA Awards</b>	Beta round Participant
	<i>I was selected as one of the top 100 under 25s in Britain for my educational robotics platform concept and prototype.</i>	
2013	<b>Young Rewired State</b>	"Best Example of Code" Category Finalist
	<i>I created an app for comparing the user's political views with those of MPs in Parliament, then created an autonomous guidance system to shoot the least liked MPs with nerf darts.</i>	
2012	<b>Young Rewired State</b>	"I wish I'd thought of that" Category Winner
	<i>I was part of a team that built a mapping application that gave human-like instructions based on local geographic landmarks.</i>	

## interests

Within physics, my primary interests lie in the areas of quantum and particle physics - and in particular, the use of computer simulations to model physical situations. Outside of physics I enjoy making and simulating robotics with a specific focus on education robotics and swarm and evolutionary robotics. I have been involved in a number of outreach projects designed to teach children about programming and STEM subjects. Additionally I am a member of Historia Normannis, an international 12th Century reenactment society and social secretary of Lancaster University Living History Society.

## references

Professional:	<b>Mr Harry Harrold</b>	Director of Neontribe
	<i>harry@neontribe.co.uk</i>	
Academic	<b>Prof. Guennadi Borissov</b>	Academic Advisor
	<i>Lancaster University, Bailrigg, Lancaster, LA1 4YW, 01524 594612, g.borissov@lancaster.ac.uk</i>	