

# Simon Turner

**Website:** <http://simongt.com>

**Github:** <https://github.com/nocturnaltortoise>

I am a Computer Science student at the University of Sheffield. I have practical experience in software engineering in teams, working with clients to solve real world problems using a variety of technologies. I am willing to learn and use any programming language or technology stack.

## Relevant Experience

**Software Development Internship at Visualwind:** 4<sup>th</sup> July 2016 - 2<sup>nd</sup> September 2016

I helped write an application for processing and visualising large amounts of timeseries and event data from windfarms. One of our major concerns was designing for scalability, and as such I worked on an API using the Tornado web framework, designed to use asynchronous queries to InfluxDB to allow for large, simultaneous data queries in an efficient manner. I gained experience working in a team of other developers to get historical data from InfluxDB, and live data from Kafka consumers, as well as developers working on making a frontend for my API. In order to allow clients to run their own custom data analysis, I worked on deploying a Hadoop cluster using SaltStack, to provide a mechanism for storing large CSV files of historical data in a fault tolerant and scalable way.

**Computer Science lab Demonstrator:** 29<sup>th</sup> September 2016 – Present

Helping first year students who are often struggling to grasp fundamental concepts of programming is a useful experience, as it helps improve my ability to explain technical concepts to people who are unfamiliar with them.

**Webmaster for Sheffield University Roleplaying Society:** April 2015 – Present

I designed a website based on requirements from society members, and developed that website with HTML5, CSS3, and Wordpress to make content easily editable for the future. Taught me important lessons in working with non-technical people, requirements capture, and maintaining a live website.

## Projects

- **Clifton and Micklebring Village Memories Website** (Ruby on Rails, Capybara, RSpec, Haml, SCSS, JavaScript, JQuery, PostgreSQL):
  - Web app for archiving the memories of people from Braithwell, Clifton and Micklebring, built working with a client and a team of other developers. Users were able to submit audio, text or images, and these contributions had to be moderated, with audio files being transcribed via an API provided by an automatic audio transcription service (WebASR).
- **Instant Messaging Client** (NodeJS, Express, SCSS, Grunt, JavaScript, Jasmine, MongoDB, Mongoose):
  - Web app built with two other developers in NodeJS using Express with a MongoDB backend. Allowed you to chat with individuals or groups, sending and editing messages, including inline LaTeX support for sending formulae.

- **Sinatra Twitter App** (Ruby, Sinatra, CSS, JavaScript, SQLite, Bootstrap, Twitter API, Rake, RSpec, Capybara, Cucumber, Agile development):
  - Ruby and Sinatra app built to work with a client's Twitter account, allowing them to use basic (following, unfollowing, tweeting, deleting tweets etc) and advanced functionality (automatic following) from a dashboard. Worked with a team of developers, using Agile (Scrum), tested with RSpec, Capybara and Cucumber.
- **Natural Deduction assistant** (JavaScript, HTML5, CSS, Jasmine):
  - An assistant, written with another developer, for performing natural deduction proofs, built in JavaScript and tested in Jasmine.
- **Optical Character Recogniser** (Python, NumPy, SciPy):
  - Program for recognising text on scanned book pages using a k-Nearest-Neighbour classifier with images feature reduced using Principal Component Analysis.

## Skills

- **Languages:** Java, Python, Ruby, JavaScript, Haskell, HTML5, CSS, SCSS/SASS, NodeJS
- **Tools, Frameworks and Libraries:** Git, Ruby on Rails, NumPy, Tornado, SaltStack, Capybara, RSpec, Rake, Grunt, Jasmine, Bootstrap, Sinatra, Cucumber, SciPy, Express, Hadoop, LDAP, Kafka, Bash, Zsh, Fish, JQuery
- **Database software:** InfluxDB, MySQL, SQLite, PostgreSQL, MongoDB
- **Operating Systems:** Linux (both Redhat and Debian based), Windows
- **Software Development:** Agile, Test Driven Development, Scrum, eXtreme Programming, Waterfall, Kanban

## Education and Training

- Reading Computer Science (BSc, 3 Years, currently 3rd year) at the University of Sheffield, achieved a First Class level of performance in my first and second year. Graduating in July 2017.
- Achieved A Levels in Maths (B), History (A), an AS Level in Physics (C), and a BTEC (level 3) in IT (Distinction Star).
- Achieved GCSEs in: ICT (A\*), Graphic and Product Design (A), Physics (A), Maths (A), English Language (A), English Literature (A), Religious Education (A), History (A\*), Geography (A\*), Chemistry (A\*), Biology (A)

## Interests and Hobbies

Although I enjoy programming side projects in my spare time, I have other hobbies. I enjoy playing video games, but also enjoy board and tabletop roleplaying games. I find that playing these types of games with friends can be more of a fun and engaging social experience than many video games. Not all of my hobbies involve staying indoors – I enjoy going hiking, and have recently taken up Fencing.