

# Linus Norton

*Software engineer, architect and technology leader*

## Summary

Technology leader with in-depth knowledge of Agile software development, object oriented design and team building.

Excels at building productive teams by ensuring effective software development processes are in place, the team is aligned towards the same goal and motivated to achieve it. Leads the team by example, setting the technical standard for the team to follow including test driven development and good object oriented design.

Areas of expertise include software architecture, highly available distributed systems, continuous integration, unit testing, BDD, design patterns, object oriented design, functional programming, development methodologies and team building.

## Experience

### Chief Technology Officer, Assertis Ltd | October 2013 - Present

- Created a highly effective Agile team in a high risk, heavily regulated industry competing against multinational corporations
- Scaled the team from 2 to 15 developers establishing a distributed team based in Poland
- Enabled the business goals by increasing visibility and planning effectiveness using **Scrum**
- Re-architected legacy systems to a **Service Oriented Architecture** that enabled rapid development of new features and products
- Implemented a modern software development environment by setting up **Continuous Integration, Continuous Deployment**, automated Selenium testing and virtualized development environments using **Vagrant**
- Migrated from a managed hosting environment to a fully automated (**Ansible**) AWS environment based on Ubuntu 14.04, **Aurora**, and **PHP7**.
- Architected and developed a cross-platform ticket retailing application that worked as a responsive website, iOS, Android and Windows Phone app using PHP APIs and an AngularJS frontend.
- Maintained an excellent uptime across **web and mobile platforms** that retail tens of millions of pounds a year.
- Raised the profile of the company by open sourcing internal libraries

## Chief Technology Officer, On Track Retail | September 2014 - April 2016

- On secondment from Assertis to launch a joint venture with a FTSE 250 company.
- Created an entirely new team of 25 developers (only using a recruiter once) and met a very ambitious, immovable deadline
- Architected a highly available ticket retailing engine using **Scala** microservices, **RabbitMQ** and a **Galera** DB cluster
- Designed a robust set of **RESTful APIs** and JSON protocols
- Integrated with a large number of arcane, poorly designed and dreadfully documented rail systems

## Web Developer, BBC | January 2013 - September 2013

- Development of the next generation CMS in **Javascript** using **Backbone.js** and **Underscore.js**
- Design of key architectural components and moving the team to a more functional programming approach using **Underscore.js**
- Mentored developers on best use of **RequireJS**, **Backbone.js** and **unit testing** with **dependency injection**
- Improved the build tools by moving to **node.js** and **Grunt** with support for **Jasmine** and **JSHint**
- Worked with the product owner to define the software development process, including **feature branching**, **deployment** and **continuous integration**

## Team Lead, BraveNewTalent | October 2011 - January 2013

- Leading a team of developers to deliver an enterprise solution for BraveNewTalent using **PHP**, **Zend**, **Doctrine** and **JavaScript**
- As the enterprise product became the focus of the entire organisation and I was put in charge of the technical team
- Contributing to the redevelopment of the software platform using **PHP**, **Symfony2** and **CoffeeScript**
- Mentoring developers on **object oriented design**, **Agile** software development and **unit testing**
- Working with the product owner to define the product roadmap
- Assisting with the implementation of best practices across all teams including **Scrum**, **continuous integration**, **unit testing** and **continuous deployment**
- Acting as **Scrum master** for development teams
- Working with the CTO to recruit new members of the technical team

## Lead Developer, MyTrainTicket | March 2010 - October 2011

- Development of a large scale train ticket issuing system (TIS) that integrated with financial and rail systems using **PHP**, MVT Javascript (**Backbone**, **Underscore**), **Sass**, **Java** and **Python**
- Implementation of development procedures including version control, **unit testing** and **continuous integration**
- Responsible for all servers and server applications (**Apache**, **PHP**, **MySQL**) including performance tuning with **memcached**, **mod\_deflate** and **expires headers**, load balancing with **HAProxy** and MySQL master/slave replication

## Senior Developer, Assertis Ltd | February 2007 - March 2010

- Development of the company CMS using **PHP**, **JavaScript**, **MySQL** and **XSLT**
- Quality assurance and progression of developers coding standards.
- Project planning, management and documentation including wireframes, site structures, entity relationship diagrams, project timelines

## Skills

### Back End Programming

PHP (Silex, Zend, Symfony2), node.js (ES6 / TypeScript), Scala (spray, slick3), MySQL, Elasticsearch, Java (J2SE, Android)

### Front End Development

HTML5, CSS3, Sass, Less, Javascript (ES6/7, babel, React, Backbone), Mustache et al

### System Administration / DevOps

Linux, Apache, nginx, MySQL, Galera cluster, HAProxy, memcached, Vagrant, Ansible, Jenkins

### Domain Knowledge

OO design, software architecture, high availability, scalability, continuous integration, unit testing, design patterns, web services, Agile, Scrum, Kanban, product development, Lean

## Open Source Contributions

**PHP Journey Planner** (<https://github.com/linusnorton/php-journey-planner>)

**Grunt Parallel Behat** (<https://github.com/linusnorton/grunt-parallel-behat>)

**Dev Sourcr** (<https://github.com/linusnorton/xFrame>)

**MMOGOL** (<https://github.com/linusnorton/mmogol>)

## Talks and articles

**The Lean Scrum** - PHP Conf (<https://joind.in/event/php-uk-conference-2012/the-lean-scrum>)

**Refactoring to functional** - article (<http://linusnorton.github.io/posts/refactor-to-functional>)

## Education & Qualifications

**University of Kent** - BSc in Computer Science with Honours (2:1)

**Norwich City College** - BTEC National Diploma in Computer Software (Distinction)

**Zend** - PHP5 Certified Engineer