# **Atanas Abrashev**

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#### Education

• The University of Manchester

Manchester, United Kingdom

*September 2011 - June 2015* 

- Result: First-class honours

B.Sc. Computer Science

## **Work Experience**

OakNorth

London, United Kingdom

July 2019 - Now

Tech Lead (Full-time)

- Lead the technical delivery of the Credit Analysis platform.
- Mentored and interviewed new members of the team.
- Actively participated in growing and shaping the engineering team from 5 to 100 engineers.

Senior Engineer (Full-time)

October 2018 - July 2019

- Full stack development using Django/GraphQL backend and React/Apollo frontend.
- Data pipelines using microservices.

### Radius Payment Solutions

Manchester, United Kingdom

*June* 2017 - *September* 2018

*R&D Engineer (Full-time)* 

- Data analytics using Python and Apache Spark.
- Prototyping a chatbot and new algorithms for assessing driver performance.

Software Developer (Full-time)

June 2015 - June 2017

- Full stack web development using Django/PostgreSQL backend and React/Redux frontend.
- Worked to develop various applications for tracking fuel card and vehicle usage.
- Used Java and Spring for developing and maintaining a real-time telematics system for managing data coming from thousands of devices.

#### DataCentred

Manchester, United Kingdom

*June 2014 - September 2014* 

Cloud Platform Intern (Summer Internship)

- Supporting, developing and maintaining a Cloud platform based around Openstack.
- Used Puppet, Ruby and Python to automate the deployment of various services such as hard drive health monitoring and IPMI configuration
- Used Clojure and Riemann to write a filtering tool for log messages generated by Logstash and syslog.

#### • IBM

Hursley, United Kingdom

Software Developer (Industrial Placement)

June 2013 - June 2014

- Working in a very agile environment with daily scrums and planning meetings, I was placed in various positions to work on different projects of varying size.
- Had a chance to practice my skills in various technologies, while learning Perl and maintaining a large amount of internal APIs and tools, written in different programming languages.
- Gained a lot of knowledge in Unix-like operating systems, as well as how to create a stable automated environment for building and testing new software.
- Wrote an automation tool in Perl and Java which was based around IBM Security Appscan. My tool was
  used as part of the continious delivery stack in order to scan Java source code of various IBM products
  for vulnerabilities.

## • The University of Manchester

Manchester, United Kingdom

September 2012 - May 2013

PASS Leader

Received training on how to facilitate and tutor people in their studies.

- Conducted weekly tutorial sessions with a group of first-year Computer Science students.
- Prepared tutorials and ways to engage students in learning, while solidifying what I already knew.

## **Larger Projects**

### • Gesture-Controlling an IoT Robot

**University Project** 

- Created a robotic platform, based around the Dagu Wild Thumper Chassis
- Used a Raspberry Pi to talk to a T'rex Robot Controller using the Standard Firmata protocol in order to control actuators and sensors from the Pi.
- Created an API for controlling the robot from a web interface and built an example application that uses the Leap Motion Controller and it's API to control the robot from the Internet using hand gestures.

### • Particle System Simulator

**University Project** 

- Created a particle system simulator using C and OpenGL.
- Provided ability to modify the engine parameters in such a way, that the same engine can render different particle effects such as rain, fire and fireworks.

### • SOS - Simple Operating System

**University Project** 

- Wrote a simple operating system for the ARM processor in Assembly.
- It can perform process scheduling, system call dispatching and primitive memory handling.
- I wrote a calculator program for it, applying shunting yard algorithm to deal with complex expressions.
- Also wrote drivers for things like a keypad and a display to control the OS and user programs.

#### • IBMS

### IBM Thinkpad Challenge Team Project

- Team project to write a system to deal with bus scheduling and driver rostering in Java
- Went through the full software lifecycle, applying agile methodologies for the duration of the project.
- Developed a genetic algorithm with combination of other techniques to provide efficient driver rostering.
- Created an interface to the provided databases that was used by the team.

### • TGN - The Gaming Network

**University Team Project** 

- Wrote a simplistic PHP framework for the team to use for the duration of the project.
- Learned about AJAX and jQuery to allow for dynamic content update.

#### • Arduino Snake Game

**Individual Project** 

- Created a 10x10 LED matrix.
- Developed an algorithm to make the Arduino microcontroller play the snake game and play music.

### **Core Technical Skills**

Languages: C, Python, Java, Javascript, Perl, Puppet, SQL, Assembly, Matlab, shell scripting, Clojure, Ruby, LATEX

Databases/Servers: PostgreSQL, Cassandra, DB2, MySQL, Oracle

IDEs/Version Control: Eclipse, Visual Studio, Rational Team Concert, Git, Mercurial

Operating Systems: Linux, Windows, AIX, Solaris, HP-UX, z/OS

Technologies/APIs (AI): Tensorflow, Keras, Numpy, Pandas, Scikit-learn, Jupyter, Apache Spark (using Databricks)

Technologies/APIs (Web): React/Redux/Apollo, Django, Flask, NodeJS, Spring, WebSockets, GraphQL

#### **Activities & Interests**

- I greatly enjoy solving algorithmic problems and logical puzzles.
- Completed the Deep Learning and Mathematics for Machine Learning specializations on Coursera.
- Currently working on Self-Driving Car and Artificial Intelligence Nanodegrees on Udacity.
- Interested in electronics and microcontrollers Arduino in particular.
- Previous member of my country's national logic puzzles team.
- Participation in online competitions, such as those offered by USACO or the IBM Mainframe Challenge.
- Participation in hackathons organized around university campus.

#### **Awards & Honours**

• Eminence & Excellence Award

IBM, 2014

- Awarded for outstanding contribution during IT Placement Year at IBM