Atanas Abrashev

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Education

- **The University of Manchester** — **Manchester, United Kingdom**
  B.Sc. Computer Science — *September 2011 - June 2015*
  - Result: First-class honours

Work Experience

- **Radius Payment Solutions** — **Manchester, United Kingdom**
  R&D Engineer (Full-time) — *June 2017 - Now*
  - 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**
  Cloud Platform Intern (Summer Internship) — *June 2014 - September 2014*
  - 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**
  PASS Leader — *September 2012 - May 2013*
  - 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.
- **Dunapack-Rodina AD** — **Plovdiv, Bulgaria**
  Programmer, IT Support & Technical Translation — *July 2010 - August 2011*
  - Created front-end applications for visualizing production data output in XML format.
  - Created statistical tools that show product output and employee effectiveness, after taking an initiative and being given permission by my supervisor.
  - Collaborated with all levels of hierarchy within the company to translate technical documents related to the production of corrugated paper. These documents are now used actively for training new employees and I am sometimes contacted to extend on them.

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: React/Redux/Apollo, Django, Apache Spark, Spring, WebSocket

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Activities & Interests

- I greatly enjoy solving algorithmic problems and logical puzzles.
- Completed online courses on Algorithms, Machine Learning and Artificial Intelligence on Coursera and Udemy.
- 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