**LIAM WOOD**

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**OBJECTIVE**

My goal is to take the next step in my career by leading a high-quality and innovative development team. I am a highly skilled and experienced software engineer with over seven years professional experience in a large array of technologies and practices encompassing geospatial analysis, full stack development, machine learning, advanced scripting and automation. I have an MSc in Information Systems and Technology which included a specialisation in Natural Language Processing. I have successfully led complex software development projects and directed team members effectively. I am adept at communicating across the organisation and understanding the perspectives of all stakeholders.

**EXPERIENCE, SKILLS AND ACHIEVEMENTS**

**Achievements**

* Inherited and continued development on a complex, geospatial analysis web application.
* Developed a solution for displaying large volumes of visual data with high performance
* Directed an independent team and led the full stack development of a Machine Learning powered Wind Turbine Damage Detection system.
* Built [www.broxtech.com](http://www.broxtech.com/) – an integrated platform which allows for cloud file management, organisation management**.** It also uses Python machine learning packages for handwriting/signature recognition.

**Software Engineering**

* Combined Eight Years professional backend language experience**,** four with Python and four with C#/.Net.
* Analysis and Secure Design, diagrams, defining scope, complexity and timelines. Using Scrum for project management and I can direct others to complete units of work.
* Frontend – Seven years experience with JavaScript. Also expertise in Vue, Vuex, react, angular, webpack, node, AWS S3 web hosting, Heroku web hosting.
* API – AWS API Gateway, Flask
* Backend – Postgres, Entity Framework, SQL, NoSQL. Python, .net/C#, Redis and more.
* Over Seven years experience with TDD and Unit Testing, authentication, roles, authorization, tokens and other security best practices.
* Devops - Docker, Terraform, SAM templates, AWS

**Database and DevOps skills**

* Seven years experience in Postgres, SQL Server and SQLite, using them to perform administrative, reporting, maintenance and database deployment duties.
* Seven years experience with MongoDB and Redis.
* I can use advanced scripting techniques in Linux and Powershell to automate, chain and scale complex tasks.
* I can deploy applications to Azure and AWS and am very competent with DevOps principles and practises. I can use Infrastructure as code tools such as Terraform to define and deploy resources.

**Project Management and Leadership**

* Directed the handover and building of a job automation system.
* Built a geospatial analysis web application using up to date serverless design practices.
* Worked with colleagues and clients around the world with complex geospatial and supercomputing problems.
* I put a lot of these principles into my own personal projects such as [www.broxtech.com](http://www.broxtech.com/) and [www.hillingtonparkchurch.co.uk](http://www.hillingtonparkchurch.co.uk/)

**EDUCATION**

**University of Liverpool,** *MSc* Information Systems and Technology (November 2013 – July 2017).

Final grade – A.

* Completed modules -
  + Foundations of Computing, Information Systems, Web Technologies, Principles of Software Development, Security Engineering, Systems Analysis and Design, Quality Assurance, Testing and Project Management.
* Dissertation was based on Natural Language Processing. It used cluster analysis to categorise tweets and is available at [https://goo.gl/Y95o2q](https://twittertextclustering.shinyapps.io/Twitter_Cluster_Analysis/)

**University of Aberdeen,** Bsc *hons* Psychology. (2006 – 2010).

* Dissertation focus was on research methods using statistical software to accurately compare two psychological cases.
* Joint author of a paper published in the academic journal *Cognitive Neuropsychology.* This is available at [https://goo.gl/JVXR2T](http://homepages.abdn.ac.uk/j.crawford/pages/dept/pdfs/CognitiveNeuropsychology_2010_Compare_two_cases.pdf).

**WORK EXPERIENCE**

**Global Surface Intelligence, Edinburgh** *– Web Developer*

May 2021 – December 2024

* Initially took over and developed a geospatial web application.
* Developed a job/workflow automation system. I managed the project, defining tasks for devops and designed the frontend myself.
* Developed a wind turbine damage identification system. I worked with multiple people to manage the project, design a full stack system, implement externally developed machine learning models and define remote, high powered GPU resources.
* Helped implement Clean Code Architecture into the new large application.

**Save and Invest Financial Planning, Glasgow** *– Full Stack Developer*

December 2019 – April 2021

* Developing applications for both the Financial Planning and Estate Agency side of the business. Using AngularJS for front end development, C# for server side and SQL Server for database. There was a mix between working on large and small APIs, Microservices and Applications. Also use Redis and MongoDB when appropriate.
* Built a Portfolio Valuations system and a Cashroom system.
* Developed documentation and guides for new employees and team members using my own initiative.
* Helped implement Clean Code Architecture into the new large application.

**Open Energy Market, Guildford** *– Junior Software Developer*

August 2017 – December 2019

* Completed Development tickets for features, microservices and bug fixes in SQL Server, Redis, C#, .Net Framework, .Net Core, JavaScript, Ajax, CSS and HTML.
* Did a lot of Requirements Analysis, assisting with sprint planning, talking with stakeholders and internal support issues
* Deployment and troubleshooting on Azure.

**qedi, Aberdeen** – *Software Support Analyst*

August 2015 – August 2017

* Main duty was to explain complex application behaviour or identify described issues as bugs and escalate.
* Gather client requirements and translate to SORs.
* Assist with user testing, interface design, application deployment and maintenance.
* Used SQL Server to investigate complex queries.
* Demonstrated proactivity by developing reports on different areas of the business unit. Used Python and statistical analysis to examine case trends and client requirement trends.

**Dominoes Falling Productions** *– Developer and administrator*

January 2013 – present

* Elicited requirements for website, based on budget resources and aesthetic requests.
* Registered domain names, chose hosting service, gathered content, wrote HTML5, JavaScript and CSS, used Linux to upload files to host server.
* After circumstances changed, I took responsibility for ensuring the site's continued existence. It can be found at <https://goo.gl/q3lDBV>.

**Further skills**

* My psychology education and teaching experience have allowed me to develop excellent communication skills. I have had a wide exposure to many environments and rise to any challenge that comes my way. I am resourceful, driven and love using problem solving skills and teamwork to achieve ambitious goals.

**REFERENCES**

* Mark Howie – Manager at GSI. Email: [mark\_s\_howie@hotmail.com](mailto:mark_s_howie@hotmail.com). Tel: 07407260903
* Reena Sutaria – Senior Tester and Scrum Master at OEM. Email: r.sutaria@openenergymarket.com
* Thomas Evans – Senior Content Editor – Dominoes Falling Productions. Tel.: 07542957365
* Further references available upon request.