

Contact

www.linkedin.com/in/alexramlow
(LinkedIn)
www.ndy.com (Company)

Top Skills

Modeling
Engineering
CFD

Languages

English (Native or Bilingual)
German (Native or Bilingual)

Alexander Ramlow

CFD, HPC, DevOps, SecDevOps, SysOps, Software Developer
Brisbane, Australia

Summary

Specialising in large scale CFD Simulations and physically accurate rendering of images for daylight simulations. Applying extensive background skills in designing, building and maintaining High Performance Compute systems to provide the required horsepower to run computer simulations for a wide variety of industries. Delivered many custom software and hardware solutions that were driven by various business and project needs, such as real-time analysis of huge data sets as well as analysis of real-time data feeds to aid decision making processes.

Recently ventured into the field of analysis of financial market data to build an autonomous trading system around analytical processes of all available market governing data feeds.

Experience

Bridj
DevOps Team Lead
October 2018 - Present
Brisbane, Australia

As the DevOps Team Lead it is my responsibility to lead a team of DevOps engineers in the aspects of designing, building, operating and maintaining all aspects of the Bridj Cloud Infrastructure. The key goal for all things infrastructure is a near 100% level of automation for deploying and maintaining systems and networks, but also to be able to quickly and efficiently recover from any DR situations.

One of my main responsibilities is to redesign the infrastructure to very high levels of standard from a security point of view. This involves an increased visibility into the systems by introducing aggregated logging and performance monitoring, but also guiding the development team on required platform changes to allow seamless integration into new secrets management systems across all environments.

Across the organisation I support the various development teams in automating common tasks required for their daily work as well as bringing all of their local environments as close to production as possible. I also take developers on the DevOps journey by educating them on the needs of DevOps automation and opportunities that well designed systems can bring to the table.

Ramlow Design

CFD, HPC, Software Developer, DevOps, SecDevOps, SysOps

2002 - Present

Brisbane, Australia

Ramlow Design is a test bed for various new technologies and automation software for the field of Computational Fluid Dynamics and Lighting Simulations, primarily for the Building Services Industry. Some of the tools developed automated the provisioning of large scale computing clusters for data processing purposes in the engineering industry.

The software dynamically reconfigures the required nodes to suite the processing needs and continuously generates images of the output for easy access without the need to load any simulation data.

AFX2

Director

February 2015 - Present

Development of autonomous foreign exchange trading system with real-time tick data feed analysis as well as historic data analysis for decision making on trade/no-trade. Multi-broker implementation with spread and volume comparison for trade optimisation to maximise return and risk mitigation.

Equifax - Australia

Senior DevOps Engineer

October 2017 - October 2018 (1 year 1 month)

Brisbane, Australia

Responsible for developing and implementing a new micro-services architecture for a new product that is currently being developed with high volume throughput and data analysis for real-time user interaction.

RED Risk Management Services Company

Systems/Software Architect

February 2015 - March 2018 (3 years 2 months)

Global

Designed, built and maintain the companies bespoke logistics management system. The system is built around specific business needs with high levels of system security.

Megaport

Senior DevOps Engineer

April 2017 - October 2017 (7 months)

Brisbane, Australia

Genie Solutions Pty Ltd

Senior DevOps Engineer / Developer

October 2015 - February 2017 (1 year 5 months)

Aerocare Flight Support Pty Ltd

Senior DevOps Engineer

July 2015 - October 2015 (4 months)

Brisbane

XTrade (IOM) Limited

CTO

October 2014 - July 2015 (10 months)

Global

My responsibilities include all aspects of IT from strategic planning to design and implementation of new server infrastructure as well as overall system and software architecture design. A key element is the combination of High Performance Computing used typically for large scale simulations in the engineering and finance industry with highly intuitive web interfaces allowing access to all aspects of business and technology.

A lot of focus is on simulating various business aspects with all possible combinations of all possible input variables in real-time! This allows for highly accurate forecasting and leads to significant cost optimisation. All business and simulation input and output data is backed by a very large data warehouse implemented in RDBMS and NoSQL making use of the inbuilt and custom software for cross-datacentre and cross-database system replication and synchronisation. The overall system is operating fully autonomous with custom interfaces built for "data mending" and machine learning to support the evolutionary nature of the data.

Ladbrokes

Senior Programmer

October 2013 - October 2014 (1 year 1 month)

Primarily a frontend developer using various reactive frontend HTML5/JS frameworks such as Meteor with NodeJS and PHP server backend. The main focus is to optimise the way users interact with the systems and speed up information delivery to real-time interaction.

I also integrated a real-time data feed from the UK does on-the-fly data transformation from Couchbase (NoSQL) to MSSQL. This system is triggered by changes in the Couchbase database system and it will create, update and result matches and competitions on the Ladbrokes, Bookmaker and Betstar website simultaneously.

Norman Disney & Young

Consultant

October 2010 - November 2012 (2 years 2 months)

Provided computer modelling expertise in the fire engineering, ESD division and 3D rendering as well as defined new procedures on how to process large scale models, which previously could not be processed. Streamlined the process of computing resource management for those simulations using a large cluster of dedicated machines.

Philip Chun Advanced Technology

Director

November 2008 - January 2011 (2 years 3 months)

Responsible for the operation of Philip Chun Advanced Technology in all aspects within the Philip Chun Group of Companies.

Philip Chun Advanced Technology is offering a variety of high end 3D visualisation services for the architectural and engineering industry.

Furthermore, Philip Chun Advanced Technology also specialises in day light modelling and Computational Fluid Dynamics Simulations (CFD) from small to very large, highly complex and computing intense simulations. All of these services are managed and overseen by myself.

Besides the externally offered services, Philip Chun Advanced Technology is also solely responsible for all IT infrastructure for the whole of Philip Chun.

Personal achievements at Philip Chun are a complete redesign and implementation of all aspects of IT for the Philip Chun Group of Companies. The implementation took less than 6 months from initial design concept to final implementation across all offices of Philip Chun world wide.

WSP

Engineering Modelling Manager

January 2005 - October 2008 (3 years 10 months)

Responsible for all computational fluid dynamics simulations, pedestrian movement and evacuation simulations and daylight modelling in the Brisbane office of WSP Lincolne Scott. Grew the inhouse capabilities to be able to deliver projects of unmatched complexity and intricacy. Performance increase for CFD simulations with reduction of processing time from 12 days to under 24 hrs by utilising existing resources and realigning them to meet demand and client requirements.

Trained and managed staff in the field of CFD and daylight modelling. Responsible for resource management of inhouse and external resources. Developed and implemented dedicated local data processing network and further assisted in advancing the CFD capabilities in other WSP offices.

Project involvement:

- all aspects of CFD modelling for the Brisbane Convention and Exhibition Centre in South Bank. Largest CFD job I have been responsible for. Various areas modelled with 8-15 millions cells and peak resource requirement of ~500 processors.
- smoke modelling for extension of Level 3 of Conrad Jupiters Casino at the Gold Cost. Redefined the way CFD was done at Lincolne Scott.

Education

Technische Universität Dresden

· (1998 - 2000)