

## MARK HIBBERD

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### SOFTWARE DEVELOPMENT . TECHNICAL LEADERSHIP . QUALITY FOCUS

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Senior software developer focused on building composable systems with clean design and fully-factored, maintainable code. Language and technology agnostic, with a deep understanding of Computer Science and a preference for Scala, Java, Python, Bourne Shell and UNIX. Experienced leader, able to mentor and build teams capable of sustainable, high quality development through application of technical expertise, rigorous testing, continuous integration and a disciplined approach to software development.

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### HIGHLIGHTS

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- Developed high performance Elliptic-Curve mathematics library used to implement Elliptic-Curve Cryptography for RSA. This development incorporated several new and innovative algorithms covering three pending patents for which I am a co-inventor.
- Design and implementation of application infrastructure for distributed and disconnected environments that has been deployed on US Coast Guard cutters. This work included consulting and training for Lockheed-Martin and the US Coast Guard.
- Led large-scale system design and development whilst consulting for Leapstream. Dealt with the reliability and scalability issues inherent in high-volume, high-transaction environments.

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### PROFESSIONAL HISTORY

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#### **Netstorm/CoastalComms/CoastalWatch**

*Software Consultant*

**May 2009 – June 2009**

Short term contract. Design and architecture of meteorological data service platform. Focus on reliable and timely acquisition, modeling and delivery of large volumes of data for both scientific and media consumption.

#### **Leapstream**

*R & D / Software Consultant*

**Apr 2008-Apr 2009**

Java and JEE consulting and development. Open source and product development. Distributed and scalable applications. High-volume content distribution. Agile/XP coaching and training for sustainable development.

**RSA the Security Division of EMC***Senior Software Engineer / Technical Lead***Aug 2006–Apr 2008**

Designed and implemented Java security toolkits, dealing with cryptography, certificates, PKI and SSL/TLS. High quality and performance focus. Innovated in Elliptic-Curve algorithms. Provided technical leadership for multiple projects, leading a team of five developers to successful outcomes.

**Mincom***Software Engineer***May 2004–Aug 2006**

Developed clean-room Java infrastructure dealing with distributed applications over unreliable networks and data access for Mincom's defence customers. Customer consulting and training in the US and Australia.

**Blur Technology***Co-Owner / Developer***Jan 2002–June 2005**

Established Blur Technology. Online hardware retail. Developed online store, assembled hardware and system administration.

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**ACADEMIC HISTORY**

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**In Progress - Doctorate of Philosophy (PhD)***Queensland University of Technology (QUT)***Jun 2006–Present**

Research into debugging paradigms and models of logic and declarative languages. Preliminary work has been published and presented at the MoDELS 2007 conference.

Hibberd, Mark T. and Lawley, Michael J. and Raymond, Kerry (2007)  
Forensic Debugging of Model Transformations. Proceedings 10th  
International Conference, MoDELS 2007: Model Driven Engineering  
Languages and Systems.

**Bachelor of Information Technology with Distinction (Software Engineering)***Queensland University of Technology (QUT)***Mar 2002–Nov 2004**

Graduated with Distinction, obtaining a GPA of 6.33.

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**AREAS OF INTEREST / EXPERTISE**

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- Distributed and scalable systems.
- Performance myths, debunking overly complex and unnecessary programming constructs with better design and algorithmic improvements.
- Application usability, specifically programmatic interfaces and patterns.
- Unix/Linux, the right tools are integral to productive software development.
- Music, it is off topic, however I live for good music, and attempt to play the guitar.

**Referees are available on request.**