

# Michael Dennis Jagdis

BSc (Hon)

## PERSONAL DETAILS

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## PRIMARY SKILLS

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<b>UNIX / Linux</b>	<b>25+ years</b> System administration on a wide variety of UNIX flavours (BSD, <a href="#">Linux - Redhat</a> and <a href="#">SuSE</a> , <a href="#">Solaris</a> ). Specification, configuration, installation and administration of systems, from desktops to multiprocessor servers with RAID storage subsystems, large-scale clusters of servers, clouds ( <a href="#">AWS</a> and <a href="#">GCP</a> ) and compute farms (10,000+ servers).
<b>Storage</b>	<b>20+ years</b> Specification, configuration, installation and administration of systems, including servers with internal RAID arrays, external RAID subsystems and SAN/NAS devices such as <a href="#">NetApp</a> utilizing <a href="#">Samba/CIFS</a> , NFS, iSCSI and <a href="#">OpenAFS</a> .
<b>Java, C / C++, Assembler</b>	<b>30+ years</b> Mainly in UNIX and Linux environments, some Windows. Applications, databases, network and system programming. Kernel and device driver development. x86, RTOS, microcontrollers, <a href="#">ARM</a> , <a href="#">ESP</a> , <a href="#">STM8</a> , 680x0, 6809, 6502, Z80 ...
<b>Script/Interpreted Languages</b>	<b>30+ years</b> Including, but not limited to, <a href="#">Bash/sh</a> , <a href="#">JavaScript</a> , <a href="#">Lua</a> , <a href="#">Perl</a> , <a href="#">PHP</a> , <a href="#">Python</a> , <a href="#">Tcl/Tk</a>
<b>Network</b>	<b>30+ years</b> Specification, design and installation of networks: physical cabling, switches, firewalls, IPsec ( <a href="#">strongSwan</a> , <a href="#">Openswan</a> ), web ( <a href="#">Apache</a> ) and email ( <a href="#">Dovecot</a> , <a href="#">Postfix</a> ).

<b>Database</b>	<b>25+ years</b> Design and administration of databases: <a href="#">Informix</a> (Standard Engine and Dynamic Server), <a href="#">MySQL</a> , <a href="#">Oracle</a> and <a href="#">PostgreSQL</a> . Programming with SQL, <a href="#">Informix</a> 4GL (original, Dynamic 4GL/4JS, <a href="#">QueriX</a> ), <a href="#">Perl DBI</a> .
<b>Web</b>	<b>25+ years</b> Administration scripts, <a href="#">Apache</a> configuration and module coding, cache configuration, web design using <a href="#">HTML/CSS</a> , <a href="#">JavaScript</a> , <a href="#">XML</a> , <a href="#">Perl</a> + <a href="#">PostgreSQL/MySQL</a> .

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## CAREER HISTORY

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<b>Mar 2023 to present</b>	<b>Owner &amp; Managing Director</b> <a href="#">Eris Associates Ltd.</a> , 9 Lancaster Gardens, Reading, England RG6 7PA <ul style="list-style-type: none"> <li>• General consulting and contracting.</li> <li>• Development of the <a href="#">openHAB</a> binding for <a href="#">WundaSmart</a> smart heating systems.</li> </ul>
<b>Oct 2015 to Mar 2023</b>	<b>Executive Director / Senior Engineer</b> <a href="#">Goldman Sachs International</a> , Plumtree Court, 25 Shoe Lane, London EC4A 4AU <ul style="list-style-type: none"> <li>• Moved from contract to permanent, expanding on projects and responsibilities that previously fell under the aegis of Eris Associates (below).</li> <li>• Working with Risk to improve cryptography standards, modernise infrastructure and evaluate impact of bugs.</li> <li>• Designed and implemented scripts to enable seamless storage migrations.</li> <li>• Implemented support for NFS with <a href="#">Kerberos</a> security.</li> <li>• Working with <a href="#">Marcus</a> (retail banking) to optimise resource usage, diagnose bottlenecks and maximise scalability.</li> <li>• Working with Real Time to explain variability and outliers.</li> <li>• Implemented features and extensions to the <a href="#">SaltStack</a> configuration management system.</li> <li>• Diagnosing and explaining performance issues and system behaviours, advising on possible improvements.</li> </ul>
<b>Dec 2002 to Oct 2015</b>	<b>Owner &amp; Managing Director</b> <a href="#">Eris Associates Ltd.</a> , 9 Lancaster Gardens, Reading, England RG6 7PA <ul style="list-style-type: none"> <li>• Providing technology and management consultancy in implementation and migration, systems and network design, administration, monitoring, automation and management with customers ranging from SMEs to multinational investment banks.</li> </ul>

- Installations range from small office servers to clusters and compute farms consisting of many thousands of machines plus SAN/NAS systems such as [NetApp](#) and network file systems such as NFS, [Samba/CIFS](#) or [OpenAFS](#).
- Growing a compute farm from less than 200 hosts to over 10000 in half a dozen datacentres.
- Design and implementation of a hands-off automated build system.
- Design and implementation of a system for real-time system monitoring/alerting and statistics gathering/graphing to provide pro-active fault handling and performance tuning.
- Integrating AFS into a software distribution system.
- Live migration of multi-terabyte filesystems to new servers.
- Design and implementation of dialplans for [Asterisk](#) and Callweaver VoIP/tel PBXs.
- Configuration management with [CFEngine](#) and [SaltStack](#).

**Jun 2001 to Dec 2002**

**Senior Software Engineer**

**[Inpharmatica Ltd.](#), 60 Charlotte Street, London, England W1T 2NU**

- Member of cross-departmental group designing and implementing change management processes and tools: document/code repositories, release management and defect/change request tracking.
- Design and implementation of bioinformatics algorithms and process pipelines for the analysis of terabyte scale databases of DNA and protein data, performance optimisation of existing applications and systems.
- In-house training of research group in management processes, languages and coding strategies.
- Configuration and administration of clusters of [Linux](#) and [Sun](#) machines using both a proprietary in-house queuing system and the SunGridEngine system.

**Jan 1999 to Jun 2001**

**Chief Network Architect / Senior Analyst Programmer**

**[Kokua Communications Ltd.](#), 52-53 Conduit Street, London, England W1S 2YX**

- Development of scalable system architecture for two way Ka band Internet via satellite broadband communication. Responsibility for technical integrity of overall system design, creation of link budget and bandwidth analyses, selection and management of external suppliers/subcontractors.
- Analysis, design and development of [Linux](#) based customer premises equipment. Includes TCP performance enhancements, traffic queueing strategies (CBQ, SFQ, RED, etc.), firewalling, multicasting, SNMP agent extensions, statistics gathering, file/printer serving, web caching, web serving, web page design, and more.
- Design and implementation of a test bed to simulate the packet delay and loss characteristics of geostationary satellite links.

**Jan 1991 to Jan 1999**

**Consultant / Project Manager / Systems & Network Engineer / Analyst Programmer**  
**Roan Technology Ltd., 2 Markham Mews, Broad Street, Wokingham, England RG40 1AB**

- Development of a suite of menu, security and resource management programs and libraries, originally in [Unique Concept 4GL](#) and converted to [Informix 4GL](#) / [QueriX](#), ESQL and C.
- Development of a solicitor's case processing and accounting system in [Informix 4GL](#) / [QueriX](#), ESQL and C for a large firm of solicitors with offices throughout the UK. Responsibility for the underlying system libraries and networking requirements between the offices and to the Internet using [Linux](#), [3Com](#) and [Cisco](#) routers in a multiprotocol environment (TCP/IP, PPP, UUCP, NetWare/IPX).
- Design and implementation of a [Linux](#) based fax-to-desk/email solution.

**Jan 1990 to Jan 1991**

**Project Manager / Analyst Programmer**  
**Inta Electronics Ltd., Wokingham, England**

- Development of an integrated business system, comprising accounting, stock control, factory planning, CAD, word processing and email systems for a Dutch manufacturer of heavy plant machinery. This included specification and design through to training of both technical staff and end users, involving much on site work in the Netherlands plus support via telephone and modem.

**Sep 1988 to Dec 1989**

**Software Engineer**  
**Tetra Business Systems Ltd., Maidenhead, England**

- Responsibilities included the development and maintenance of Tetra's main products, Tetraplan, Tetra 2000 and Chameleon, and the initiation of project management procedures for future work.

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## EDUCATION

**1988**

BSc (Honours) Computer Science, [Reading University, England](#)

**to 1985**

4 'A' Levels, 1 'AO' Level, 10 'O' Levels

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## OPEN SOURCE CONTRIBUTIONS

Examples and current work available at <http://git.eris-associates.co.uk/>

**2020 onwards**

Created [RFGate](#), an ESP8266 based gateway for 433 MHz IoT devices, along with a [binding](#) for the [openHAB](#) smart home automation system.

<b>2018 onwards</b>	Fixes and enhancements to the <a href="#">MCU emulator</a> included as part of <a href="#">SDCC</a> - a multi-target compiler/emulator for small devices.
<b>2018</b>	Contributed a decoder for the SWIM protocol used to debug and flash <a href="#">STMicroelectronics</a> microcontrollers to the <a href="#">sigrok</a> signal analysis suite (and the fork used by <a href="#">DreamSourceLab</a> for the DSLogic).
<b>2017 onwards</b>	Contributed fixes and enhancements to the <a href="#">openHAB</a> smart home automation system. Contributions include enhancements to the binding for the 433MHz transceivers made by <a href="#">RFXCOM</a> , refactoring the <a href="#">RFXCOM</a> binding resulting in a substantial reduction in code size, and authoring a new binding for the <a href="#">OSRAM Smart+/Lightify Zigbee</a> gateway.
<b>2007 to 2010</b>	One of the core developers of Callweaver, a cross-platform software PBX system forked from <a href="#">Asterisk</a> that supports analogue and digital PSTN telephony, multi-protocol voice over IP (VoIP) telephony, fax (hardware, software, T.38 fax over IP) and is fully programmable for telephony applications such as IVR, conferencing, call centres, etc.
<b>2001 to 2003</b>	Member of, and contributor to, the SunGridEngine project.
<b>1999 to 2003</b>	Primary developer of <a href="#">Diald</a> , an intelligent control and management daemon for on-demand network links.
<b>1993 to 2001</b>	Developed the <a href="#">iBCS</a> module for <a href="#">Linux</a> which implements kernel-side "personalities" that allow SVR3 ( <a href="#">SCO</a> , ISC, Wyse V/386, etc.), SVR4 (UnixWare, Dell), 386 BSD (BSDI, 386bsd, FreeBSD, NetBSD), Xenix 386 and Xenix 286 applications to be run transparently under <a href="#">Linux</a> .
<b>1992 onwards</b>	Contributed numerous fixes and enhancements to the <a href="#">Linux</a> kernel, system programs and applications, including Cyrix/AMD processor specific support, device drivers, virtual memory and networking/ISDN.