VOJTECH PITHART

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Career Summary

Senior Software Engineer who discovered enough dead ends to become **System Analyst**, and saw enough failed projects to become **System Architect** in Telecommunications industry (**12 years**). Carefully listens to the customer's story.

Work Experience

Senior Software Engineer/System Architect @ MATERNA, *Hradec Kralove, Czech Republic*	6 years
Operations Team Leader @ MATERNA**,** *Hradec Kralove, Czech Republic*	1 year
Software Engineer @ MATERNA**,** *Hradec Kralove, Czech Republic*	4 years
Linux System Engineer @ MATERNA**,** *Hradec Kralove, Czech Republic*	1 year
Full-stack Software Developer (PHP/LAMP) @ RYCHLY DRAT**,** *Prague, Czech Republic; part-time*	4 years
Volunteer @ HKFREE.ORG community wireless network**,** *Hradec Kralove, Czech Republic*	13 years

Skills – Software Engineering

Perl	Excellent. Primary language.
PHP	Excellent. Using MVC template frameworks: Smarty, Nette.
Python	Medium knowledge.
Linux	Excellent. Linux-only user. Debian, Red Hat, Slackware, Fedora, Gentoo, Ubuntu. Scripting with awk, bash, cut, grep, tr, uniq, sort. Active.
SQL	MySQL (excellent), PostgreSQL (good); data modelling, procedures/functions, performance tuning, replication.
NoSQL	CouchDB (good), redis (medium)
Node.js	Basic knowledge. WebSockets and Express.js.
C, C++	Good knowledge. Past projects in Unix environment incl. networking.
HTML+CSS	Javascript, AJAX, jQuery, Google Closure (basic). Angular JS (beginner).
Versioning	Very good. User/administrator of GIT and SVN in team environment.
Testing/QA	Unit testing. Acceptance testing. Selenium. SoapUI. IOT, E2E. Test Driven development.
Java	Basic. J2SE – basic knowledge. Apache/Tomcat, JBoss – operations, troubleshooting.
Android	Android SDK (basic).
API/protocols	Excellent: SOAP, WSDL/XSD; RESTful. Concepting, implementing new server and client sides (various languages), documenting, troubleshooting existing, quick-understanding WSDLs as Telco Consultant.
Queue mgmt	ZeroMQ (good).
Virtualization, HA	Made HA clusters using XEN , DRBD, LVM cluster, Corosync, Pacemaker.

Skills – Telecommunications & Wireless Networking

MVNE, MVNO	Very good in understanding Mobile Virtual Network Enabler/Operator concept. Very good analytical experience, combined business, technical, and subscriber view.
GSM/UMTS	Excellent knowledge of SMS and USSD in PLMN (mobile networks). Experience in MAP/TCAP/SCCP/SCTP/MTP stack hacking (SS7, SIGTRAN) with Wireshark.
Networking	Very detailed knowledge, wired and wireless networks, backbone networks, advanced routing (OSPF, BGP) and firewalling (iptables). Common networking platforms: Linux (excellent), Mikrotik (excellent), UBNT (excellent), Cisco (basic). Operating local wireless WAN as a free-time activity. Active.
Messaging	SMS releated infrasctrucure (very detailed knowledge); SMPP, UCP/EMI, MAP. Have done analysis, development, troubleshooting, integration, documentation and training for Materna SMSC.
Wireless	Radio relay microwave links (10, 11, 17 GHz – Alcoma, Summit, Orcave, SVM). WiFi 802.11a/b/g/n/ac (2.4 Ghz, 5.5GHz - Mikrotik, Ubiquiti Networks). Fiberless optics. Calculation of RF links (theory), building (working at heights), maintaining (outdoor work in any weather).
TCP/IP	Very detailed knowledge, design, building & administration of networks and servers. Specification of new protocols. Deep analysis with Wireshark. (Fast)CGI, SSH & tunelling, remote administration of servers, SSL and certificates, OpenVPN/IPSEC.
VoIP	Very good knowledge of Asterisk configuration, SIP and IAX2.
IVR	Excellent in setting up both technology and content of IVRs, tailored differently project by project. Using text-to-speech, native speakers or both.

Work Experience (details)

Senior Software Engineer/System Architect @ MATERNA Communications, a.s.   Jan 2008 – Present
Hradec Kralove, Czech Republic

- Meeting with customers in early phases of a project; turning their needs to the system, network, data model, use case, performance and sizing analysis.
- Led the team that introduced country-unique MVNE platform; for ~30 MVNO's in Czech Republic and Germany (2013/14).
- Performed successful on-site consultancy for setting up MVNE at Middle East (2016).
- Telecommunications projects (MVNE, BSS) – architecture, analysis, consultancy.
- Creating specifications in very deep detail; self-programming proof-of-concept prototypes where applicable; offering Test Procedures for Test Driven Development.

Reference: Jan Severa, Project Manager, tel. +420602759996

Operations Team Leader @ MATERNA Communications, a.s.   Aug 2007 – Jan 2008
Hradec Kralove, Czech Republic

- Introduced network monitoring (Nagios), hardware and service documentation, and production change process.
- Controlled Operations Team with 4 members, schedule duties, set responsibilities and due dates of particular jobs
- Managed project plans and providing status updates to management.
- Hired new personnel, negotiated salaries, conducted monthly 1-by-1 interviews and trained newcomers.

Software Engineer @ MATERNA Communications, a.s.   Dec 2004 – Aug 2007
Hradec Kralove, Czech Republic

- Built the IVR "Software as a Service" in 2 weeks; it led to acquire key customer.
- Enhanced company's flagship application (message router) that saved approx. $1,500 equivalent

monthly (5% of costs per message).
- Developed a lot of tiny, simple and powerful 24x7 web-based services the agile way.

Linux System Engineer @ MATERNA Communications, a.s.   Oct 2003 – Dec 2004
Hradec Kralove, Czech Republic
- Proactively supported critical telco infrastructure systems, monitored performance of the systems, reviewed error logs regularly.
- Installed, configured & trouble-shooted Linux-based servers (Gentoo, Red Hat) – WWW, WAP, VoIP services.
- Trouble-shooted through all ISO/OSI layers including down-to-bit analysis
- Performed out-of-workhours standby duties (nights, weekends).

Full-stack Software Developer (PHP/LAMP) @ RYCHLY DRAT, s.r.o.   2012 – Present
Prague, Czech Republic; part-time

- Analyzed various billing-related bussines processes
- Introduced the plan to overtake billing functions from paid services to own open-source based solution to save ~ $2,000 monthly.
- Developed and deployed many change requests on Linux/Apache/MySQL/PHP/smarty stack
- Setting up data exchange interfaces with Core Network

Reference: Josef Pithart, CTO, tel. +420723130510

Volunteer @ HKFREE.ORG community wireless network   2003 – present
Hradec Kralove, Czech Republic; volunteering in non-profit association

- WAN Area Administrator: planning, building, upgrading and supporting wireless network in rural area, climbing ladders
- Building and troubleshooting SOHO networks
- technologies: WiFi 802.11a/b/g/n/ac (2.4 Ghz, 5.5GHz), microwave links (10, 11, 17 GHz), Linux, OSPF/BGP, mikrotik, RouterOS, Ubiquiti Networks

Reference: Lukas Brezina, board member, +420739433600

Education

2007 internship at **Alcatel-Lucent** (Dortmund, Germany - 4 weeks)
Tariff Plan Design Workshop: (IN platform for GSM pre-paid customers), hands-on training.

1997 – 2003 **Czech Technical University** (Prague, Czech Republic – 6 years)
Master of Sciences in **Electrical Engineering and Informatics**

1993 – 1997 **Electronics Technical College** (Pardubice, Czech Republic – 4 years)
High School Diploma in **Electronic Computers**