Nicholas Papadonis

SOFTWARE ENGINEER

PROFILE

Software Engineer with 15 years' experience in R&D developing new products. 6 years' experience in customer facing roles delivering solutions. Experienced from low level hardware/software integration to web services.

SKILLS

Programming Proficient: C, C++, Java, Python, LISP, Shell Scripting. **Programming Experience:** Javascript, SQL, HTML/CSS, Scheme, Go. **AI:** Neural Networks, Backpropagation, Gradient Descent, Optimization Problems, Probability Theory/Stats, Markov Chains. **Computation**: Systems, Distributed Computing paradigms, Systems, Encryption and Cybersecurity Practices, Databases, Algorithms, Graph Theory, Linux, Unix, Build Systems, CI/CD. **Cloud:** AWS, GCP, OpenStack, Kuberbetes, YAML, Message Queues, Containerization, Scaling, Frontend/Backend. **Embedded and OS:** Hardware, Kernel, OS Internals and Device Drivers, Real Time. **Network:** Entire Stack (All OSI L1-L7) from Modulated Signals to Application Layer, Packet Sniffing, Switching, Routing, Load Balancing (L7, 3, 4), IP/DNS, IPv6. **Database:** RDBMS, NoSQL, JSON.

EXPERIENCE

Accepted to Masters Program Student Hybrid Computer Science

University of Massachusetts at Amherst, Amherst, MA, 2023-current

- Formal Languages, Logic, Mathematics, Graph Theory, Physics, Computation Theory, Statistics, Neural Networks/AI. Everything a graduate student in sciences should know.

Principle Software and Solutions Engineer

Polymath Software Consulting

Boston, MA, 2018-current

- Cloud application development: AWS and GCP. Python, Node.js (Javascript, REST/HTTP API, Kubernetes, Helm, DevOps, CI/CD, Docker, GIT, Flask, Java Spring, MongoDB and SQL DB. AI ML. Development in C, C++, Python, Javascript/Node.js, LISP/Scheme. Map reduction.

Principle Software and Solutions Engineer

Oracle Corporation, Enterprise Sales Financial Services, New York, NY, 2011-2018

- POC demonstrations, proof of values presentations, debugging and performance improvements with worlds leading real time market data company. ■ Static and dynamic code analysis C/C++ on site with customer. Developed Python open source bring up code for Openstack private Cloud and a Java app for distributed NAS communication. Reviewed operating system kernel source code in C to improve performance.

Senior Software Engineer

Oracle Corporation, Intel Enterprise Server Hardware R&D, Burlington, MA / Austin, TX, 2005-2011

- Development of server embedded BMC for rack mount and blade systems used currently in Oracle Cloud. ■ Linux and C, XML, I2C, JTAG. Board bring-up. Interfaced with electrical and computer engineers. ARM.

Senior Software Engineer

Sun Microsystems Inc., Enterprise Server Hardware R&D, Burlington, MA / Austin, TX, 2003-2005

- Development of server embedded BMC for rack mount servers. Software concept, requirements, design, development and system test phases. Enabled product manufacturing at board fabrication facility and led controller product bring up for Ranger supercomputer at Texas Advanced Computer Center. Large scale distributed system consisting of 16,744 blade servers. ■ C, Embedded Linux, VxWorks.. ARM and PPC.

- Development of CPU board firmware to support DDR memory. Led team consisting of multiple developers. Requirements, functional specifications, software deliverable schedules, resource estimates. ■ C, OOP in Java, VxWorks, and OOP. PPC.

- Development of server embedded BMC, Linux kernel device drivers, FPGA interfacing, BIOS communication, board bring-up. ■ Embedded Linux, C, C++, Java. PPC.

Software Engineer

Bose Corporation, Consumer Electronics R&D, Framingham, MA, 2002-2003

- Designed and developed software application for consumer audio. Embedded system. ■ C, C++, RTOS, OOP.

Software Engineer

Navic Networks, Digital Advertising R&D, Newton, MA, 2001-2002

- Developed test simulator for CATV set top boxes. Application created deployment scenario of 500k set top boxes. ■ Embedded Linux, Windows 32, C, OOP and C++.

Software Engineer

Coelacanth Engineering, Customer Hardware Solutions R&D, Middleborough, MA, 2000-2001

- Development of JTAG firmware update application. Ported GUI widget library. ■ Linux, C, C++ and OOP.

Software Engineer

Hewlett Packard Company, Test and Measurement R&D, Burlington, MA, 1997-2000

- Developed automated test application to calibrate signal attenuators using test equipment. ■ C. Visual Basic. GPIB/HPIB.

Education

University of Massachusetts, Amherst, MA B.S. Computer Science, 1996-2001

- Distributed communication system using infrared sensors and emitters on PowerPC platform.

- Developed autonomous robot. Developed 2D to 3D computer vision application. Developed application which allowed grasping of objects using kinematics and vision feedback loop.

ACTIVITIES

- Running, Eagle Scout.