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# Oleg Pryadko

experienced software developer - python, web, Linux

## CONTACT INFO

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Excellent **Python/ Linux** software developer with **10 years of experience** in OOP, Python (7 yrs), web development, and Linux servers/ workstations/ boards.

- **Dabbled in C**, networking, electronics, and embedded development
- Worked with **various industries**, including nonprofit, gaming, and vending.
- **Self-managing**, fast learner, patient teacher, **clear communicator**.

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## EXPERIENCE

### Casinfo Systems & Gaming Technology Group (NV)

SEP 2011 - PRESENT

#### Senior & Solo Developer (contract, mostly remote)

Designed and developed:

- A **slot machine player tracking and rewards system** using a Python/ PostgreSQL daemon running on a Linux server that uses MDNS, persistent sockets, and RPC to control embedded Linux boards with touch screen displays, card readers, and slot machine serial interfaces.
  - *Challenges* included optimizing massive data sets, a complex state machine, synchronizing state/ data changes with remote display animations, and integration with frequently-changing external components.
- A **custom unit test framework for ORM functions** that required a real database and full system initialization.
  - *Challenges* included ignoring commits, synchronously running threaded and asynchronous functions, and restoring the configuration and global environment after each test.
- A library that allowed the same functions to be **used with different types of main loops** (asyncio, GLib, gbulb, and legacy GTK).
- A custom file format and parser (XML and ECMAScript) to **allow non-Python developers to configure complex business logic**.
  - *Supports* unit tests, IDE syntax highlighting, and schema validation.
- User interfaces for **runtime configuration and administration** of logging, timing, connections, etc....
- User interfaces for **auditing and adjusting massive PostgreSQL data sets** gathered from slot machines and player sessions.
- A **GUI report generator** that allowed non-developers to create custom PDF reports on a legacy database using ODF file templates and MSSQL query templates.
- **Dozens of other** python daemons, scripts, components, libraries, and integrations.

Refactored and improved existing code base:

- **Figured out, cleaned, and documented** messy, complex code.
- **Migrated** software from python 2 to python 3.
- Maintained, created tests for, and improved an in-house, encrypted, bidirectional, persistent **RPC protocol library**.
- **Bridged and adapted** software to use the in-house RPC protocol.
- Added **unit and functional tests**.
- **Expanded packages and APIs** with new features.
- Run and communicate with legacy Perl scripts as **subprocesses** of the python daemon.

Other duties:

- Configure and maintain **Linux development servers and tools**.
- **Train and support** other developers.
- **Troubleshoot** bugs.
- **Resolve miscommunications** between colleagues.

- **Work with** clients and testing labs to pass certifications.
- Hire, train, and supervise **subcontractors** (just a few months)
- Write **documentation** and how-to articles.
- **Graphic and web design** to showcase products.
- **User interface design** for touch screens and administration tools.

**Main technologies:** Python, PostgreSQL, Linux, ORM, MDNS/ Avahi, bash, Apache/ DAV

**Supporting technologies:** Mikrotik, ODBC, perl, C, C++, WAMP/ Crossbar, GLib, GTK+, Qt, OpenWRT, grub, ssh, PXE (network boot), VNC, Linux tools, systemd, asyncio, XML/ schemas, JSON, RPC, ECMAScript

## Go Automation (CA)

SEP 2016 - MAR 2017

### Senior Developer (contract, mostly remote)

- Assist in implementing an animated, touch-screen vending machine customer interface on top of **Python microservices in embedded Linux boards**.
- Updated a **PyQT-based HMI** to work with **asyncio and WAMP** and added support for font configuration, flexible grid layout, and other features.
- Lead a small team of contractors in creating a **Python/ Odoo** custom vending machine management platform running on a **Linux server**.

**Main technologies:** Python, Odoo, PostgreSQL, MongoDB, WAMP/ Crossbar, Linux, RPC, ORM

**Supporting technologies:** ECMAScript 6, XML/ schemas, NodeJS, Qt, networking, SVN, XML/ schemas

## Various Web Development Clients (CA)

SEP 2008 - JAN 2019

### Solo & Lead Developer (contracts, remote)

- Design and build dozens of custom, dynamic **PHP/ JavaScript/ HTML5** websites for small business and e-commerce clients.
- Provide **emergency troubleshooting, custom programming, and developer training** for existing websites.
- Handle client **requirements** and end-user **training**
- Maintain **Linux/ Apache** web servers.
- Hire, train, and supervise **subcontractors**.
- Release and contribute to **open source projects**.

**Main technologies:** PHP, MySQL, HTML, CSS, JavaScript, MODX, jQuery, ExtJS

**Supporting technologies:** Linux, Python, Photoshop, OpenCart, FoxyCart, various APIs (e.g. Google Drive, Vimeo, Dropbox, payment gateways, ...), git, CPanel, Apache, NGINX, Bind

## SKILLS

Python, OOP/ asyncio/ threads, testing, Linux admin/ systemd/ shell, SQL/ PostgreSQL/ MySQL/ MongoDB, microservices/ WAMP/ Crossbar, RPC/ JSON/ XML, ERP/ Odoo/ Tryton, UI/ graphic/ animation design, full-stack web/ LAMP/ PHP/ HTML5/ CSS3, JavaScript, basic C/ C++/ Go/ Java, XML schemas, Markdown, SCXML, NodeJS, Photoshop/ GIMP/ Inkscape, IntelliJ/ PyCharm, Apache, NGINX, git, SVN, tar, rsync, ssh, netstat, nc, ifconfig, dig, whois, nethogs, and MANY other Linux command-line tools

## EDUCATION

### Self-Taught

2008-PRESENT

Everything above. Currently studying electronics, automotive technology, and the Linux C API.

Progress towards double major in Biology and Anthropology (unfinished).

**OTHER  
EXPERIENCE****Go Automation (CA)**

FEB 2019 - MARCH 2019

**Internship (Joshua Tree, CA)**

Work directly with the owner to gain experience in **C programming, Linux networking, real-time programming, kernel/ module compiling**, and other topics. This internship relied on skills gained over several years of occasional mentoring.

**Technologies:** Linux, C, Autotools, Makefiles, kernel/ modules/ drivers, Mikrotik/ RouterOS, PPP, routing, RTAI, LinuxCNC, HAL, aviation/ avionics, electronics, Python, XML/ schemas, git

**Educational Projects**

JAN 2016-SEP 2016

**Linux DevOps/ networking (independent)**

Hired several experienced consultants to get tutored in practical Linux DevOps and networking. Practiced using and configuring dozens of programs and tools, including:

- **networking:** iptables, ip, rinetd/ xinetd/ inetd, tcpdump, Wireshark, nmap, ethtool, arp, BIND, PXE, iptables, OpenVPN, PPPT, PPPD, DNS, DHCP, Mikrotik, sipmask, what, rsync, ssh, netstat, avahi-browse, nc, ifconfig, dig, whois, nethogs, dig, sshfs, and more...
- **virtualization/ containers:** KVM/ libvirt, QEMU, LXC, OpenVZ, Docker, VirtualBox, Vagrant
- **configuration management:** Puppet, Ansible
- **packaging:** Ubuntu/ Debian packages, FPM, stdeb, Makefiles, Checkinstall
- **Linux admin:** bios, grub, network boot, live CDs, apt, dpkg, opkg, package management, consoles, file systems, raid, LVM, block devices, Alsa/ PulseAudio, lspci, lsusb, systemd, X-server, and more...
- **dev tools:** gcc, gdb, nm, readelf, ldd, strace, ltrace, hexedit, lsof, ld, rr, valgrind
- **build:** Jenkins
- **monitoring:** Zabbix
- **servers:** bind, postfix, Apache, NGINX, PGP, SPF, exim, DoveCot, BIFF, and more...
- **backups:** Bacula, Amanda, duplicity, rsync, rdiff-backup, rsnapshot, and more....

Interviewed or worked remotely with consultants from **many countries and timezones**. Successfully **adapted learning and communication style** to consultants who did not have teaching experience, good English skills, or even good internet connections.