

# Oleg Pryadko

Expert Python developer with web and Linux background.

## CONTACT INFO

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Thanks for looking, but I recently found a new job and am NOT currently interested in a job change.

Software developer with **7 years of advanced Python development** and **10 years of total experience** in Linux, OOP/ patterns, PHP, JavaScript, web, databases, and APIs.

- **Dabbled in C, C++, Java, networking, electronics, and embedded development.**
- **Worked with various industries**, especially nonprofit, e-commerce, gaming, vending, and consulting.
- **Trained developers** (6+ years) and end-users (9+ years). **Led small teams** (1.5 years).
- **Clear communicator**, self-starter, **excellent teacher**, loves feedback, **constantly learning**.

## SKILLS

**Programming Languages:** **Python 2 & 3** (7 years advanced), **PHP** (6 years advanced, 10 years total), **JavaScript/ ECMAScript/ NodeJS** (2 years advanced, 10 years total), **shell/ Bash** (6 years), some **C/ C++/ Java/ GoLang**

**Concepts:** OOP/ patterns, threaded/ asynchronous programming, testing, ORMs, microservices, pub/sub, RPC, message queues, relational database design, API design & integration, REST, ERP, UI/ graphic/ animation design, some embedded, some RTOS (real time)

**Python:** entire standard library (incl. asyncio), PyQt, PyGLib/ PyGObject/ PyGi, Autobahn, Odo, Tryton, Django, Flask, and **over 100 other libraries**

**Linux:** systemd/ systemctl/ journalctl, Apache, NGINX, Docker, rsync, ssh, vim, and **hundreds** of other services, commands, and tools

**DevOps/ Networking:** see bottom of resume

**Databases:** PostgreSQL (7 years), MySQL (10 years), MSSQL (occasional), MongoDB (<1 year)

**API & Markup:** RPC, JSON, XML, schemas, REST, HTML5, CSS3, SVG, SCXML, Markdown

**Tools:** IntelliJ/ PyCharm, Photoshop/ GIMP/ Inkscape, version control/ SVN/ Subversion/ Git, AWS (mainly S3 & EC2), and various other dev tools (debugging, profiling, analysis, packaging, etc...)

**Spoken Languages:** English (perfect), Russian (almost fluent), Spanish (some)

## EXPERIENCE

### Remediant

#### Senior Software Developer

MAY 2019 - PRESENT

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

#### Senior Python Developer/ Project Lead (contract, mostly remote)

SEP 2011 - MAY 2019

Summary:

- Became the **lead (often solo) developer** for a complex, in-house Python framework (ERP/ ORM/ MVC/ APIs/ services) and the systems built on it.
- **Developed dozens** of Python/ Linux daemons, scripts, components, libraries, and integrations.

- Assisted with developing drivers, installers, packages, and microservices for **embedded boards** (SMIBs) running a custom Linux distro.
- Provided **developer training and support, Linux server administration, web/ UI/ animation design**, and other tasks as needed.

Designed and developed Python system components, including:

- A new **slot machine player tracking and rewards system** that uses MDNS, persistent sockets, and RPC to control embedded Linux boards with animated touch-screen displays, card readers, and slot machine serial interfaces.
  - *Challenges* included optimizing large data sets and streams, a complex state machine with concurrent events, synchronizing state/ data changes with remote display animations, and integration with 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 XML/ ECMAScript file format to **allow non-Python developers to configure complex business logic**. The format 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.
- **Custom JSON-RPC APIs** for integration with legacy systems.

Refactored and improved existing Python code base:

- **Troubleshooted, cleaned, and improved** complex, undocumented code.
- **Migrated** software from Python 2 to Python 3.
- Improved and expanded existing **XML-RPC & JSON-RPC APIs**.
- Wrote **unit and functional tests**.
- **Bridged and adapted** software to use a custom in-house **RPC library**.

Other duties:

- **Trained, supported, and assisted** other developers.
- Hired, trained, and supervised **subcontractors**.
- Configured and maintained **Linux development servers**.
- **Resolved miscommunications** between colleagues.
- **Worked with** clients and testing labs to pass certifications.
- Wrote **documentation** and how-to articles.
- Created **graphic and web design** to showcase products.
- **Designed user interfaces** for touch screens and administration tools.

**Main technologies:** Python, PostgreSQL, Linux

**Supporting technologies:** MDNS/ Avahi, Bash, Apache, Mikrotik, ODBC, Perl, C/ C++, WAMP/ Crossbar, GLib, GTK+, Qt, OpenWRT, GRUB, SSH, PXE (network boot), VNC, Linux tools, systemd, asyncio, ECMAScript, XML/ schemas, JSON/ RPC/ APIs

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## Go Automation (CA)

SEP 2016 - MAR 2017

### Senior Python Developer/ Small Team Lead (contract, mostly remote)

Worked with the owner of Go Automation, who is also the lead embedded developer for Casinfo Systems, in developing custom software for a vending machine distributor.

- **Led a small team** of remote contractors in creating a custom vending machine management platform using **Odo** (a Python ERP framework).
- Implemented an animated, touch-screen vending machine customer interface on top of **Python microservices in embedded Linux boards**.
- **Designed and implemented an API** to allow the central Odo server to securely pull data from and push configuration and software packages to the remote embedded boards.

**Main technologies:** Python, Odoo, PostgreSQL, MongoDB, WAMP/ Crossbar, Linux  
**Supporting technologies:** ECMAScript 6, NodeJS, XML/ schemas, Qt, networking, SVN, RPC, ORM

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## Independent Consultant, 20+ clients

JAN 2012 - JAN 2019

### Web Framework Specialist/ Lead Web Developer

Offered specialty consulting for MODX, an open-source PHP web framework.

- Provided **emergency support** and **custom module development** for MODX websites.
- Provided **management, developer training**, and **support** for MODX-based projects.
- Hired, trained, and supervised **subcontractors**.
- Configured and maintained **Linux servers**.
- **Released open source components** and contributed to MODX framework development.

**Recent clients:** Blue Mountain Center of Meditation 2013-2019, Education Law Center 2017-2018

**Main technologies:** Linux, Apache, PHP, MySQL, MODX, HTML, SASS/ CSS, JavaScript

**Supporting technologies:** Python, Photoshop, e-commerce, various APIs (e.g. Google Drive, Vimeo, Dropbox, payment gateways, ...), ORM, git, CPanel, Apache, NGINX, Bind, AWS (mainly S3 & EC2)

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## Independent Consultant, 40+ clients

SEP 2008 - DEC 2011

### Solo Web Designer/ Developer

Designed and built custom, dynamic websites for dozens of **small business and e-commerce clients**. Provided **full-stack web development** (Linux/ Apache/ MySQL/ PHP/ JavaScript/ HTML5), custom **graphic design**, **wireframing**, **requirements gathering**, and **end-user training**.

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## EDUCATION

### Self-Taught

2008-PRESENT

#### Everything above.

Currently studying **electronics**, **automotive mechanics**, and **cloud architecture**.

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### University of California, Riverside

2003-2008

#### Unfinished/ No Degree

Progress towards double major in **Plant Biology** and **Anthropology**.

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## OTHER EXPERIENCE

### Go Automation (Joshua Tree, CA)

FEB 2019 - MARCH 2019

#### Internship (on-site, 30 days, unpaid)

Work on several active projects to gain experience in **C programming**, **Linux kernels**, **networking**, **RTOS**, **embedded/ control systems**, **electronics**, **SMT**, and other topics.

**Technologies:** Linux, C, RTAI (real-time Linux), PID loops, SMT, reflow, kernel/ modules/ drivers, Mikrotik/ RouterOS, PPP/ OpenVPN, iptables, routing, LinuxCNC, HAL (hardware abstraction layer), Autotools/ Makefiles/ compiling, BIOS, GRUB, automotive mechanics, avionics, wiring, electronics, Python, XML/ schemas, git

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### Educational Projects

JUNE 2017 - FEB 2019

#### Skills for Low-Level Programming

- **Electronics breadboard projects** (LAoE), including practice in soldering, using oscilloscopes/ function generators, and figuring out circuits.
- **Automotive repair practice**.
- **C programming practice**.

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## Educational Projects

JAN 2016-SEP 2016

### Linux DevOps & Networking

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, 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:** BIOS, GRUB, PXE (network boot), live CDs, package management (apt, dpkg, opkg), consoles, file systems, RAID, LVM, lsblk, fstab, fdisk, dd, parted, ALSA/ PulseAudio, lspci, lshw, 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.