

Andrey Sidorenko

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Portfolio: psitronic.github.io | GitHub: github.com/psitronic

SUMMARY OF QUALIFICATIONS

- Pragmatic software developer with strong programming, analytical and communication skills.
- 10+ years experience in implementing complex algorithms for automated real-time data acquisition systems, numerical computations and data analysis.
- Team player thinking creatively and critically, highly proficient at problem solving and open to new ideas.

PROFESSIONAL EXPERIENCE

Researcher | Technische Universität Wien, Austria

Feb 2010 – present

- Built a data acquisition system in *Python* (*Qt*, *PyQt*) to control complex scientific facility (€1'000'000) and to acquire large amount of data in real time (500 kSamples/s), saving hundreds personnel hours.
- Implemented in *Python* (*NumPy*, *SciPy*, *Multiprocessing*, *h5py*) parallelization of FFT noise analysis taking more than 1'000 CPU hours. Boosted the speed of production by 200%.

Researcher | Università di Parma, Italy

Feb 2002 – Jan 2010

- Initiated a project for migrating from *Matlab* to *Python* saving the institute about €20'000 annually through a 50% reduction of license payments.
- Developed software in *Python* and *C++* (*Minuit*, *gsl*) to analyze experimental data resulting in designing the first organic spintronic devices and various innovative tools.

Co-founder, CEO and Software Developer | Alta-Bryansk LLC, Russia

Jun 1997 – Apr 2009

- Led a team of more than 10 IT professionals and developers. Set the company's short- and long-term strategy.
- Provided scientific groups with numerical and analytical solutions for various scientific and engineering problems implementing complex algorithms in *Fortran*, *C++* and *Mathcad*.

SKILLS

Python, NumPy, SciPy, PyQt, Matplotlib, MongoDB, GitHub, Pytest, Linux, Bash, JavaScript, Fortran.

SIDE PROJECTS

- **Wages Of Fear:** Designed and created the multilevel arcade *Python* game.
- **CarTalk:** Developed a back-end part in *JavaScript* with *NodeJS* and *MongoDB* within the Chingu Voyage-7 collaborative web project designed for car enthusiasts.
- **CrioFiles Reader:** Created a parser in *Python* to read and parse complex wave data-forms from binary files created by the proprietary software (Cryogenic Ltd).

EDUCATION & RELEVANT CERTIFICATIONS

- **Ph.D. in Physics** | Moscow State University, Russia *Oct 1997 – Apr 2000*
- **M.S. in Physics** | Bryansk State University, Russia *Jul 1992 – May 1997*
- MongoDB for Developers | MongoDB University *Mar 2018 – May 2018*
- Introduction to Computer Science and Programming Using Python | MITx *Dec 2017 – Feb 2018*