

Vladimir Kvitnevskiy

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[vladkvit.github.com](https://github.com/vladkvit)

Skills Comfortable with C, Python, embedded programming, C++, signal processing.
Worked with Various scripting languages, various front-end & back-end web stacks.

Education **Computer Engineering, Honours BSc, 2007-2012**

University of Waterloo

Experience **Founder**

Developing a control system for multirotor vehicles with swashplates that enables sideways movement without tilting or using tiltrotors.

Created and patented a triple-swashplate design for coaxial helicopters to take advantage of the sideways movement technology.

Contributed to open source ([dRonin](#))

CTO & Co-founder

Made a speech-activated UI for webbrowsers - it combined eye tracking with speech recognition to provide context-sensitive actions ([demo on Youtube](#)).

Won the Velocity Venture Fund pitch (prize: \$25,000 + incorporation)

Interviewed, hired, and worked with a software engineering intern.

Researched and implemented gaze tracking technologies. Created an in-browser prototype (C++ OpenCV, JS). Had an [article published on Techvibes](#).

Advisor

Helping the company with growth and organisation.

Interviewed and aided hiring decisions for software engineers and graphic designers.

WebOS Performance Team Intern

Worked on improving performance of the internal graphics API for the Palm devices. This included running performance tests, profiling, and optimizing code.

Added Qt as a new drawing engine for the internal graphics API.

Embedded Software Engineer Intern

Developed C code that takes HD video, performs scaling/encoding, and sends the stream over RTP network protocol in real-time.

Modified an internal audio tool to be $O(1)$ instead of $O(n)$ in memory requirements.

Wrote simple drivers to test new embedded hardware under Linux.

Wrote a file converter from WAV audio to Harris proprietary A/V format.

Software Engineer Intern

Reduced the downloadable size of Flash app by 2x.

Rewrote and refactored all UI code, view-port handling, and IO code, as well as reducing the load time from $O(n^2)$ to $O(n \log n)$.

Worked closely with JavaScript programmers to dynamically load content.

Overhauled dashboard and metrics pages (Web-based, PHP & MySQL backend).

Reduced loading times of large historic data from minutes to less than a second.

Programmer / Designer / Animator Intern

Mocked up, prototyped and created Flash applications.

Created 3D elements, animations and simulations (Blender 3D and 3DS Max).

Visit [vladkvit.github.com](https://github.com/vladkvit) to see my projects. (Parser, ray-tracer, realtime OS & others)

I worked with the Waterloo Mars Rover team.

Other

Tau Emerald Rotors

2013 - Ongoing

Polygaze

January - August 2012

C, C++, OpenCV, Javascript

AtomicTorch Studio

January 2013 - Ongoing

Palm / Hewlett-Packard

September - December 2011

C, C++, Linux

Harris Corporation

January - April 2010

C, C++, Linux, Windows, DSP, ARM

View22

May - August 2009,

September - December 2008

PHP, JavaScript, Flash AS3

ViaPerception

January - May 2008

Flash, Blender, Photoshop