

Michael Vaganov (michael.vaganov@gmail.com)

TL;DR - motivated programmer who loves teaching. See <https://tinyurl.com/mvGitRes> for details

Portfolio

- Projects: <http://www.codegiraffe.com/portfolio>
- Code Samples: <https://github.com/mvaganov/>
- LinkedIn: <https://www.linkedin.com/in/mvaganov/> (recommendations and endorsements)

Notable Personal Software Projects

Suffrag Ex Machina

A machine-learning engine built to test an ensemble decision-making technique (elects using ranked-choice voting).

Ethos

A [prototype for a web-based assessment system](#) designed to provoke personality development.

Impetus

An experimental suite of tools and prototypes to build a-game-about-Project-Management.

Skills

- Computer Wizard: using technology to do things most people don't understand
- Growth Mindset: a variety of skills unbound by any predefined labels
- Magical-CS-Teacher-Aura: broken assignments suddenly work when I show up to look at them
- **20+ years Programming**: hobbyist, game programmer, educator, consultant
- Programming Languages: C, C++, C#, Java, JavaScript, Python
- Software Domains: games, productivity & automation, UI/UX, multi-platform, Client/Server, VR, Web, ANN
- **15+ years Teaching Computer Science**: ages 7 to 40+. tutor, undergrad professor, high-school teacher

Employment

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Teaching @ DeVry	FFFFFFFFFFFFFFFFFFFFFpppp ppp`										
Sacred Heart Prep								FFFFFFFFFFFFFFFFFFFFFFF			
Other Teaching				vvv`	vvpv`	vvvvvppppppp		vvvvvvvvvvvvvv	vvvvv		
"my dragon"		v`	v`	v`	vvvvvFpppppppppp	vv v`	v`vv		v`v		

Key: (F) Full-time (40+ hrs/wk), (p) Part-time (~20 hrs/wk), (v) Volunteer (~10 hrs/wk)

Computer Science Teacher at Sacred Heart Prep

August 2015 to June 2019

Faculty member at an exclusive private school

- Taught computer science, with a curriculum designed to motivate (ask me about hacking)
- Wrote software widely used by school to manage day-to-day schedule notification

Code Coach at theCoderSchool

September 2014 to August 2015

Elite Computer Science education for youth (between age 7 and 17) in the Silicon Valley

- Custom-built simple and engaging tutorial content for Computer Science and electronic art
- Subjects: Unity3D, C and C++, Java, Blender, 2D and 3D math, Game Design, Project Management

Self Employed Programmer, Entrepreneur

December 2012 to Present

- Stealth startup project: Game & Project Management Software (unfinished)
- Contracted consulting work

Professor at DeVry University (Silicon Valley Campuses)

March 2006 to December 2014

Professor of Games and Simulation Programming (GSP), a Computer-Science-like Bachelors of Science degree program, with emphasis on game development

- Rated highly in students evaluations (consistently 3.5+ out of 4)
- Managed 30+ Senior Project teams (16 week project, 2 to 5 programmers /team)

Software Engineer at LimeLife

November 2006 to April 2008

Developer responsible for end-to-end network-aware mobile application development

- Senior-level engineer: product development, build-systems and automation, client/server

Software Engineer at Infospace Mobile Games

December 2004 to November 2006

Developer of mobile applications with emphasis on client/server interaction.

- Senior-level engineer: product development, framework, R&D, client/server

Porting Engineer at Atlas Mobile (later purchased by Infospace)

June 2004 to Dec 2004

Very productive first-6-months-of-professional-software-development.

- Client side QA developer, primarily tasked with porting and bugfixing

Education

Keller Graduate School of Management

September 2006 to 2010

Masters of Project Management

Other

Volunteering

- Computer Science Teachers Association: President of Silicon Valley CSTA chapter (Jan. 2018 to Present)
- Unityiversity: nearly weekly classes teaching Unity and VR (Aug. 2016 to Present)
- Citizen Schools: public school outreach (Feb. to Apr. 2014, Oct. & Nov 2013)
- Coder Dojo Silicon Valley: conference-style tech meetups for kids (Sep. 2013 to 2017)
- Guest Lecturer at various universities in Uganda (Oct. & Nov. 2012)

Hobbies

- Hiking, Biking, Rock Climbing, Fencing
- Software Side-projects, Game Jams, and Hackathons (samples at <http://codegiraffe.com>)

Personal Programming Axioms

- The price we must pay for being god-of-the-machine is Understanding.
- The best programmer writes the most Readable code. Speed is for the compiler.
- The first version is noisy, buggy, won't map-reduce, and later versions matter.
- The best code will survive long after a programmer leaves it.
- Single Point of Truth: One complexity, One bug, One change.
- Code explicit functionality rather than side effects, and `/** document it */`
- Comments are good, code that describes itself is better.
- Think about optimization now, but do the actual optimization later.
- Just Prototype. And don't expect another shot at it, so make it good!
- Refactor, Sooner rather than later; clean code grows into powerful code.
- Disciplined, results oriented software development is always in style.
- How most production code should be judged (in order):
 - Functionality: intended results are produced (with constraints in mind)
 - Survivability: useable again elsewhere (maintainable/readable/modular)
 - Robustness: stability with a wide range of input (no bugs)
 - Resource Use: resources used conservatively (Big-O, memory, threads, ...)
 - Everything Else: elegance/robust-unit-tests/optimal-efficiency/...
- The Unix way feels right (<http://www.faqs.org/docs/artu/ch01s06.html>)

Other Credo

- Persistence (iteration) is disproportionately important to success. (So, iterate. Faster.)
- Rules are for people who don't know any better; Rules are important, but understanding sets you free.
- Luck is where preparation meets random opportunity, which is happening constantly.
- To make the next best thing, the current best thing must be mundane.
- A spoonful of test dissolves a pound of design.
- Without clear goals we are wasting people's time, and we are made of time.
- Do not fear complexity, simplify it.
- more at: <http://codegiraffe.com/quotes.txt>

