

# İLLYA STARIKOV

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📍 San Francisco Bay Area

ill·ya star·ee·cove | He/Him | 🇧🇪🇺🇦🇺🇸

Obsessing over focusing on improving the future of digital communication. *Striving to make an impact on the world.*

## EXPERIENCE

9/2023 Software Engineer Research, 🏠 Labs

🇺🇸 Google Project Starline San Francisco Bay Area

9/2023 Software Engineer Devices & Services Product Area (DSPA)

12/2019 Google Central Test Engineering San Francisco Bay Area

- Architected an ML system to make Nest and Pixel factory data more insightful and actionable
  - Pioneered 6 novel ML use-cases, across 7 programs, with accuracy up to 98.5%
  - Example pipelines include clustering common failures from previous products, classifying said failures in future products, and using regression to produce new metrics or replace old ones
- Founded or co-founded efforts to scale software within entire organization: documentation overhaul (internal 350 new users/month, 750 new sessions/month), boost software testing (hundreds of new test cases), test station adoption org-common or team-common libraries (code reduction up to 70%)
- Implemented initial factory data downloader (adopted by org, external teams), common audio test framework (entire team), and lead forums for knowledge sharing (team participation)
- Factory audio software DRI for Nest Cam, Pixel Tablet, Pixel Buds Pro
  - Saved \$120k in program capex by optimizing Nest Cam (52%) and Pixel Tablet (23%) test time
  - Nest Cam's test script was fastest within Google audio (by 36%) during entire tenure
  - Nest Cam was Nest's first fully-remote program, from PROTO to MP

Garmin, 2<sup>1</sup>/<sub>2</sub> y

12/2019 Software Engineer Aviation

7/2018 Garmin Safety & Datalink Greater Kansas City Area

- Lead system testing effort to meet DO-178B compliance on GDL-60
  - Designed new test architecture, supported test infrastructure, and wrote test plans
- Implemented embedded software to synchronize configuration between two operating systems
- Lead a high-school focused engineering project to build and race a hovercraft, presented at Kansas State's ACM, guided children with Bring Your Child To Work Day projects, hosted tours

7/2018 Software Engineering Intern Aviation

8/2017 Garmin Interfaces/Data Routing Rolla, MO

- Implemented quality-of-life improvements for a highly-utilized aviation tool
- Implemented validation system for said tool, resulting in 25% code reduction in affected classes

8/2017 Software Engineering Intern Automotive OEM














5/2017 Garmin Greater Los Angeles Area

- Brought-up and maintained automation suite to assess the performance of navigation routing
- Enhanced reliability (80% to 100% success rate) and execution time (5× speed up) of automation suite by developing on-device APIs and consuming new, optimized APIs in test suite

12/2017 Team Lead & DRI Aerospace

4/2016 Missouri S&T Satellite Team Stereoscopic Imaging Rolla, MO




- Lead 6 person team of undergraduate and graduate students to deliver nanosatellite payload: mid-flight, stereoscopic capture (via MR SAT) and 3D reconstruction of a paired satellite (MRS SAT)
- Wrote synchronous flight capture code across 2× cameras to run on-device (Raspberry Pi)
- Collaborated with chief engineer, program manager, and program subsystems to architect flight code
- Satellite is undergoing testing and reviews, scheduled for launch of Summer 2024

5/2017	<b>Undergraduate Teaching Assistant</b> <i>Computer Science</i>
8/2016	<b>Missouri University of Science and Technology</b> <i>Rolla, MO</i>
	<ul style="list-style-type: none"> <li>◦ Taught programming concepts to freshman/sophomore-level students across 3× classes: Introduction To Programming (Class+Lab), Data Structures (Lab)</li> <li>◦ Created assignments, graded assignments, tests for <b>class sizes upto 60 students</b></li> <li>◦ Automated grading with tools to detect plagrism, styleguide conformance, and course-specific rules</li> </ul>
12/2014	<b>Assistant</b> <i>Employment Services</i>
9/2014	<b>Jefferson College</b> <i>Hillsboro, MO</i>
	<b>Rehired</b> 5/2015–8/2015, 5/2016–8/2016 <ul style="list-style-type: none"> <li>◦ Created user manual to serve as a guide for all new employment services assistants</li> <li>◦ Maintained large student-employment databases via college's content management system</li> <li>◦ Designed posters, fliers, and newsletters for campus announcements</li> </ul>
8/2014	<b>Web Developer</b>
5/2014	<b>Freelance</b> <i>De Soto, MO</i>
	<ul style="list-style-type: none"> <li>◦ Supported 6 projects for various clients: creating websites, mockups, data mining, data entry</li> <li>◦ Specialized in Wordpress and Bootstrap frameworks, crafting sites to meet client's requirements</li> </ul>
	<b>Software Engineer</b> Project Starline <b>Google</b> 9/2023–present
	<b>Software Engineer</b> Central Test Engineering <b>Google</b> 12/2019–9/2023
	<b>Software Engineer</b> Safety & Datalink <b>Garmin</b> 8/2017–6/2018
	<b>Software Engineering Intern</b> Interfaces/Data Routing <b>Garmin</b> 8/2017–6/2018
	<b>Software Engineering Intern</b> Automotive OEM <b>Garmin</b> 5/2017–8/2017
	<b>Bachelor of Science</b> Computer Science <b>Missouri S&amp;T</b> 1/2015–12/2018
	<b>Team Lead &amp; DRI</b> <b>Missouri S&amp;T Satellite Team</b> 4/2016–12/2017
	<b>Undergraduate Teaching Assistant</b> Computer Science <b>Missouri S&amp;T</b> 8/2016–4/2017
	<b>Computer Lab Assistant</b> <b>Missouri S&amp;T</b> 1/2016–4/2017
	<b>Employment Services Assistant</b> <b>Jefferson College</b> 9/2014–12/2014, 5/2015–8/2015, 5/2016–8/2016
	<b>Web Developer</b> <b>Freelance</b> 5/2014–8/2014
	<b>Computer Lab Assistant</b> <b>Missouri Valley College</b> 9/2013–5/2014

## TECHNICAL

tech	<b>Languages</b> Python, C++, C, BASH, SQL, $\text{\LaTeX}$ <i>Previous</i> Swift, C#, Lua, Perl <b>ML</b> scikit-learn, TensorFlow, Colab, Google Cloud Platform (GCP) <b>Tools</b> Git, i3wm, Make, regex, tmux, Tmuxinator, Vim, ZSH <b>Python</b> Cython, matplotlib, numpy, pandas, pdb, pyenv, SciPy, sphinx, tox, venv <b>C++</b> boost, catch2, lldb, stdlib, STL, valgrind
misc	15 interviews, 1 intern, 7× Google Peer Bonus, 3× Google Spot Bonus, Googler Thank You Campaign receipient, {Garmin new-hire, Google new-hire, Starline} Trivia Winner, 1 <sup>st</sup> Place MegaMiner AI , Summa Cum Laude honors, 6× Deans List Award, 18 <sup>th</sup> /229 Missouri S&T ACM SIG Competition ranking

## EDUCATION

12/2018	<b>Bachelor of Science</b> <i>Computer Science</i>
1/2015	<b>Missouri University of Science and Technology</b> <i>Rolla, MO</i>
	<b>GPA 3.83/4.0; Major GPA 3.88/4.0; Summa Cum Laude</b> <b>Advisers</b> Dr. Jennifer Leopold, Dr. A. Ricardo Morales, Dr. Simone Silvestri, Professor Clayton Price <b>Associations</b> Academy of Computing Machinery (ACM) [2/2016–5/2018], Missouri S&T Satellite Team (MSAT) [12/2017–5/2018], Institute of Electrical and Electronics Engineers (IEEE), [1/2016–5/2017] <b>Coursework</b> Artificial Intelligence, Evolutionary Computing, Data Mining, Object-Oriented Numerical Modeling, Analysis of Algorithms, Undergraduate Research, Differential Equations, Calculus I-III, Linear Algebra, Statistics, Discrete Mathematics, Modern Physics, Physics I-II, Chemistry, Micro Embedded Design
	Private Pilot Ground School 3/2019–5/2019
	<b>Jefferson College</b> 8/2014–12/2014 A+ <i>scholarship</i>
	<b>Missouri Valley College</b> 8/2013–5/2014 <i>Cross-Country/Track &amp; Field scholarship</i>