

# ILLYA STARIKOV

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San Francisco Bay Area















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Software Engineer scaling AI to build the future of digital communication. Architected ML systems across 7 product lines achieving 98.5% accuracy. Driven to solve impactful, real-world problems using data, science, and mathematics.

## EXPERIENCE

1/2025	<b>Software Engineer</b> <b>Google</b> Beam	Research, Labs San Francisco Bay Area
	<ul style="list-style-type: none"><li>Owned camera hardware-in-the-loop test (HILT) infrastructure, enabling new tests, hardware, and platforms<ul style="list-style-type: none"><li>Eliminated 105-day camera HILT failure streak <math>\in</math> 1 month of start-date, resolved <math>10^+</math> blocking issues</li></ul></li><li>Re-architected camera software updater for multi-peripheral support, integrating new hardware configurations</li><li>Reduced system image by 30% (700 MB), implemented CI/CD presubmit checks, and built developer tooling</li></ul>	
1/2025	<b>Software Engineer</b>	Research, Labs
9/2023	<b>Google</b> Beam	San Francisco Bay Area
	<ul style="list-style-type: none"><li>Designed end-to-end factory software architecture, <b>adopted by Google-HP partnership</b><ul style="list-style-type: none"><li>Aligned 25 cross-functional stakeholders spanning engineering, security, and program management</li></ul></li><li>Built secure data pipeline between Google and HP factories, enabling real-time production monitoring [spot bonus]</li><li>Unified factory interface through comprehensive testing and calibration framework<ul style="list-style-type: none"><li>Integrated 6 mission-critical subsystems: audio, camera, displays, lighting, OS, USB</li><li>Formulated system health-checking as a factory final-assembly test via a Diagnostics framework [spot bonus]</li></ul></li><li>Automated <math>25^+</math> manual preflight tests, saving <math>2^+</math> days of engineer time in 2024 alone</li></ul>	
9/2023	<b>Software Engineer</b>	Platforms & Devices Product Area
12/2019	<b>Google</b> Central Test Engineering	San Francisco Bay Area
	<ul style="list-style-type: none"><li>Shipped <math>10 M^+</math> <b>Nest Cam, Pixel Tablet, Pixel Buds Pro/2</b> devices as factory audio software DRI [<math>2^{\times}</math> peer bonus]<ul style="list-style-type: none"><li>Saved \$120 k in capex via test code optimizations: Nest Cam (52% time reduced), Pixel Tablet (23%)</li></ul></li><li>Built ML-driven analytics system transforming factory data into actionable insights for <math>7^{\times}</math> Nest and Pixel products<ul style="list-style-type: none"><li>Deployed 6 ML applications: clustering novel failure patterns to make <math>10^+</math> datasets, classification of said patterns with 98.5% accuracy, regression for additional quality metrics within 1/2 dB accuracy [<math>2^{\times}</math> peer bonus]</li></ul></li><li>Mentored intern who built a data fusion of {"3D" Lidar + "2D" photos}, implementing feature matching via ML SuperGlue Network and OpenCV ORB, producing color depth-maps and interactive 3D reconstructions</li></ul>	
12/2019	<b>Software Engineer</b>	Aviation
7/2018	<b>Garmin</b> Safety & Datalink	Kansas City Area
	<ul style="list-style-type: none"><li>Led system testing achieving DO-178B aviation safety compliance for <b>GDL-60</b> datalink receiver</li><li>Developed embedded software enabling configuration sync across dual OS environments (Garmin, Linux)</li></ul>	
	<b>Software Engineering Intern</b> <b>Garmin</b> Interfaces/Data Routing	8/2017– 6/2018
	<b>Software Engineering Intern</b> <b>Garmin</b> Automotive OEM	5/2017– 8/2017
	<b>Team Lead, DRI</b> <b>Missouri S&amp;T Satellite Team</b>	4/2016–12/2017
	<b>Teaching Assistant</b> <b>Missouri S&amp;T</b> Computer Science	8/2016– 4/2017

## EXPERTISE

tech	<b>Languages</b> Python, C++, C, Bash, SQL, LaTeX, Swift, C#, Lua, Perl <b>ML/AI</b> scikit-learn, TensorFlow, Colab, GCP Vertex AI <b>Tools</b> Docker, Git, Make, regex, tmux, Vim, Xcode, CI/CD, Linux <b>Python</b> Cython, matplotlib, numpy, pandas, pdb, pyenv, SciPy, sphinx, tox, venv <b>C++17</b> abseil, Boost, catch2, lldb, STL, valgrind	             
impact	8 products launched, $15^+$ interviews conducted, 1 intern mentored, $800^+$ CLs submitted, $300^+$ code reviews, $100^+$ bugs fixed, 9 managers, $8^{\times}$ Google Peer Bonus, $4^{\times}$ Google Spot Bonus, Google Recognition Award, 1 <sup>st</sup> Place MegaMiner AI, Summa Cum Laude, $6^{\times}$ Dean's List, 18 <sup>th</sup> /229 S&T programmer	

## EDUCATION

12/2018	<b>Bachelor of Science</b> Computer Science	
	<b>Missouri University of Science and Technology</b>	Rolla, MO
	<b>Coursework</b> Artificial Intelligence, Evolutionary Computing, Data Mining, Object-Oriented Numerical Modeling, Analysis of Algorithms, Undergraduate Research, Differential Equations, Calculus, Linear Algebra, Statistics, Modern Physics	