

ILLYA STARIKOV



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San Francisco Bay Area

ill-YAH stah-REE-kohw | He/Him |

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	Software Engineer	Research, Labs
	Google Beam	San Francisco Bay Area
	<ul style="list-style-type: none">Owned camera hardware-in-the-loop test (HILT) infrastructure, enabling new tests, hardware, and platforms<ul style="list-style-type: none">Eliminated 105-day camera HILT failure streak \in 1 month of start-date, resolved 10⁺ blocking issuesRe-architected camera software updater for multi-peripheral support, integrating new hardware configurationsReduced system image by 30% (700 MB), implemented CI/CD presubmit checks, and built developer tooling	
1/2025	Software Engineer	Research, Labs
9/2023	Google Beam	San Francisco Bay Area
	<ul style="list-style-type: none">Designed end-to-end factory software architecture, adopted by Google-HP partnership<ul style="list-style-type: none">Aligned 25 cross-functional stakeholders spanning engineering, security, and program managementBuilt secure data pipeline between Google and HP factories, enabling real-time production monitoringUnified factory interface through comprehensive testing and calibration framework<ul style="list-style-type: none">Integrated 6 mission-critical subsystems: audio, camera, displays, lighting, OS, USBFormulated system health-checking as a factory final-assembly test via a Diagnostics frameworkAutomated 25⁺ manual preflight tests, saving 2⁺ days of engineer time in 2024 alone	
9/2023	Software Engineer	Platforms & Devices Product Area
12/2019	Google Central Test Engineering	San Francisco Bay Area
	<ul style="list-style-type: none">Shipped 10 M⁺ Nest Cam, Pixel Tablet, Pixel Buds Pro 1/2 devices as factory audio software DRI<ul style="list-style-type: none">Optimized test execution generating \$120 k capex savings: Nest Cam (52% time reduced), Pixel Tablet (23%)Built ML-driven analytics system transforming factory data into actionable insights for 7[×] Nest and Pixel products<ul style="list-style-type: none">Deployed 6 ML applications: clustering novel failure patterns to make 10⁺ datasets, classification of said patterns with 98.5% accuracy, regression for additional quality metrics within 1/2 dB accuracyMentored 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	
12/2019	Software Engineer	Aviation
7/2018	Garmin Safety & Datalink	Kansas City Area
	<ul style="list-style-type: none">Led system testing achieving DO-178B aviation safety compliance for GDL-60 datalink receiverDeveloped embedded software enabling configuration sync across dual OS environments (Garmin, Linux)	
	Software Engineering Intern Garmin Interfaces/Data Routing 8/2017– 6/2018	
	Software Engineering Intern Garmin Automotive OEM 5/2017– 8/2017	
	Team Lead & DRI Missouri S&T Satellite Team 4/2016–12/2017	
	Undergraduate Teaching Assistant Missouri S&T Computer Science 8/2016– 4/2017	

EXPERTISE

tech	Languages Python, C++, C, Bash, SQL, LaTeX, Swift, C#, Lua, Perl	
	ML/AI scikit-learn, TensorFlow, Colab, GCP Vertex AI	
	Tools Docker, Git, Make, regex, tmux, Vim, Xcode, CI/CD, Linux	
	Python Cython, matplotlib, numpy, pandas, pdb, pyenv, SciPy, sphinx, tox, venv	
	C++17 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 [×] Google Peer Bonus, 4 [×] Google Spot Bonus, Google Recognition Award, 1 st Place MegaMiner AI, Summa Cum Laude, 6 [×] Dean's List, 18 th /229 S&T programmer	

EDUCATION

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