

# ILLYA STARIKOV

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 San Francisco Bay Area  
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iLLYAH stah-REE-kohw | He/Him | 

Software Engineer, Google, 8 years. Shipped 10M+ Pixel, Nest, and Beam devices. Built ML systems across 7 product lines: anomaly detection via clustering, failure classification (98.5% accuracy), quality regression ( $\pm 0.5$  dB). Production-hardened, research-ready.

## EXPERIENCE

	<b>Software Engineer</b> Google Beam <b>Camera Team</b>	<i>Research, Labs</i> San Francisco Bay Area
1/2025	<ul style="list-style-type: none"><li>Owned camera hardware-in-the-loop test infrastructure, enabling new tests, hardware, and platforms<ul style="list-style-type: none"><li>Eliminated 105-day camera test failure streak within 1 month of start-date, resolved 10+ blocking issues</li><li>Collaborated with team to improve pass rate from 30% to 100%, grow suite from 10 to 30+ tests</li></ul></li><li>Re-architected camera software updater for multi-peripheral support, integrating new hardware configurations</li><li>Drove cross-platform integration spanning device state management, client services, networking, and OS layers</li><li>Earned code approval from Google Fellow <b>Sanjay Ghemawat</b> for fixing company-wide documentation</li></ul>	
9/2023	<b>Platform Team</b> <ul style="list-style-type: none"><li>Designed factory software architecture <b>adopted by Google-HP partnership</b> for Beam manufacturing<ul style="list-style-type: none"><li>Aligned 25 cross-functional stakeholders spanning engineering, security, and program management</li><li>Built secure data pipeline between Google and HP factories, enabling real-time production monitoring</li><li>Unified factory interface through comprehensive testing, calibration and diagnostics framework<ul style="list-style-type: none"><li>Integrated 6 mission-critical subsystems: audio, camera, displays, lighting, OS, USB</li></ul></li><li>Automated 25+ manual preflight tests, saving 2+ days of engineer time in 2024 alone</li></ul></li></ul>	
9/2023	<b>Software Engineer</b> Google Central Test Engineering <ul style="list-style-type: none"><li>Shipped 10M+ Nest Cam, Pixel Tablet, Pixel Buds Pro/2 devices as factory audio software DRI<ul style="list-style-type: none"><li>Saved \$120k in capex via test code optimizations: Nest Cam (52% time reduced), Pixel Tablet (23%)</li></ul></li><li>Shipped 6 ML analytics models for automated fault detection across 7 Nest/Pixel products<ul style="list-style-type: none"><li>Applied clustering to surface 10+ previously unknown defect patterns, generating labeled datasets</li><li>Built classification models achieving 98.5% accuracy, automating defect detection</li><li>Developed regression models predicting quality metrics within <math>\pm 0.5</math> dB, replacing manual measurement</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>	<i>Platforms &amp; Devices Product Area</i> San Francisco Bay Area
12/2019	<b>Software Engineer</b> Garmin Safety & Datalink <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>	<i>Aviation</i> Kansas City Area
7/2018	 <b>Software Engineering Intern</b> Garmin Interfaces/Data Routing ..... 8/2017- 6/2018 <b>Software Engineering Intern</b> Garmin Automotive OEM ..... 5/2017- 8/2017 <b>Research &amp; Teaching Assistant</b> Missouri S&T Computer Science ..... 8/2016- 4/2017	
	 <b>artificial</b> AI algorithms: evolutionary SAT solver, chess engine with minimax/alpha-beta, A* puzzle solver.  <b>starikov.co</b> Independent technical writing on AI, computer science, and mathematics. 70+ posts, 14k views/year.  <b>.dotfiles</b> Multi-platform, enterprise-grade development environment with 80+ plugins, and 10+ shell tools.	

## EXPERTISE

tech	<b>Languages</b> Python, C++, C, Bash, SQL <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
misc	8 products launched, 25+ interviews conducted, 1 intern mentored, 8x Google Peer Bonus, 5x Google Spot Bonus, Google "Thank You" campaign recipient, Summa Cum Laude, 1st Place MegaMiner AI

## EDUCATION

12/2018	<b>Bachelor of Science</b> Computer Science Missouri University of Science and Technology	Rolla, MO
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