ILLYA STARIKOV

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ill·ya star·y·kov | He/Him |
$\int_{2017} expertise\,(\text{Data Science, Cloud, System Design})\,dt = 7^{+}$ YoE
Software Engineer applying AI & ML to build the future of ~~digital~~ communication. *Pursuing opportunities to put a dent in the universe.*

VOCATION

1/2025 **Software Engineer** *Research, Labs*
Google Project Starline *San Francisco Bay Area*
- Owned internal camera hardware-in-the-loop test infrastructure/suite: enabled new tests, new hardware, executor platforms; fixed $> \mathbf{10}$ issues, triaged failures; achieved first suite **pass in 105 days** $\in \mathbf{1}$ month of start date
- Re-architected camera software updater for better multi-peripheral support, adding support for a new peripheral

9/2023 – 1/2025 **Software Engineer** *Research, Labs*
Google Project Starline *San Francisco Bay Area*
- Designed the end-to-end factory software architecture, **adopted by Google and HP**
  - Aligned $\mathbf{25}$ cross-functional engineering managers, ICs, security council, and program management
- Brought up in-house upload server infrastructure, facilitating factory data access for Google and HP
- Implemented the standard factory interface for Starline's OS, responsible for interfacing, testing, and calibrating
  - Integrated six subsystems into said interface, including one audio functional test
  - Formulated Diagnostics framework, responsible for system health checking as a factory final-assembly test
- Contributed to the release process, automating $(> \mathbf{25})$ factory preflight tests into a single Bash script

9/2023 – 12/2019 **Software Engineer** *Platforms & Devices Product Area (PDPA)*
Google Central Test Engineering *San Francisco Bay Area*
- Factory audio software DRI for **Nest Cam, Pixel Tablet, Pixel Buds Pro,** and **Pixel Buds Pro 2**
- Architected an ML system to make Nest and Pixel factory data more insightful and actionable
  - Pioneered $\mathbf{6}$ novel ML use-cases, across $\mathbf{7}$ programs, with accuracy up to $\mathbf{98.5}\%$
  - 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
- Hosted 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 – 7/2018 **Software Engineer** *Aviation*
Garmin Safety & Datalink *Greater Kansas City Area*
- **Lead system testing effort** to meet DO-178B compliance on **GDL-60**
- Implemented embedded software to synchronize configuration between two operating systems

Software Engineering Intern Interfaces/Data Routing **Garmin** 8/2017– 6/2018
Software Engineering Intern Automotive OEM **Garmin** 5/2017– 8/2017
Team Lead & DRI **Missouri S&T Satellite Team** 4/2016–12/2017
Undergraduate Teaching Assistant Computer Science **Missouri S&T** 8/2016– 4/2017

ATTRIBUTES

tech
Languages Python, C++, C, Bash, SQL, LaTeX
Previous Swift, C#, Lua, Perl
ML scikit-learn, TensorFlow, Colab, GCP Vertex AI
Tools Docker, Git, i3wm, Make, regex, tmux, Tmuxinator, Vim, Xcode & iOS toolchain, ZSH
Python Cython, matplotlib, numpy, pandas, pdb, pyenv, SciPy, sphinx, tox, venv
C++17 abseil, Boost, catch2, lldb, STL, valgrind

misc
$\mathbf{8}$ projects, $\mathbf{15}^{+}$ interviews, $\mathbf{1}$ intern, $> \mathbf{800}$ CLs, $> \mathbf{300}$ code reviews, $> \mathbf{100}$ "tickets", $\mathbf{9}$ managers, $\mathbf{8}\times$ Google Peer Bonus, $\mathbf{4}\times$ Google Spot Bonus, Googler Thank You Campaign receipient, $\mathbf{1}^{\text{st}}$ Place MegaMiner AI, Summa Cum Laude honors, $\mathbf{6}\times$ Dean's List Award, $\mathbf{18}^{\text{th}}/\mathbf{229}$ S&T competitive 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