ILLYA STARIKOV

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github.com/**IllyaStarikov**

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

9/2023 **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 **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 ($>$ **25**) factory preflight tests into a single Bash script

9/2023 **Software Engineer** *Platforms & Devices Product Area (PDPA)*
12/2019 **Google** Central Test Engineering *San Francisco Bay Area*
- Factory audio software DRI for **Nest Cam, Pixel Tablet, Pixel Buds Pro, Pixel Buds Pro 2**
- 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
- 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 **Software Engineer** *Aviation*
7/2018 **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

7/2018 **Software Engineering Intern** *Aviation*
8/2017 **Garmin** Interfaces/Data Routing *Rolla, MO*
- Implemented validation system for a highly-utilized aviation tool, resulting in **25**% **code reduction** in affected classes

8/2017 **Software Engineering Intern** *Automotive OEM*
5/2017 **Garmin** *Greater Los Angeles Area*
- 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

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, Google Cloud Platform (GCP)
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
7 projects, **15**$^{+}$ interviews, **1** intern, $>$ **700** CLs, $>$ **100** "tickets", **8** managers, **8**× Google Peer Bonus, **3**× Google Spot Bonus, Googler Thank You Campaign receipient, **1**st Place MegaMiner AI, Summa Cum Laude honors, **6**× Deans List Award, **18**th/**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