ILLYA STARIKOV

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in linkedin.com/in/IllyaStarikov

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San Francisco Bay Area

ill·ya star·ee·cove | He/Him | _____

Obsessing over focusing on improving the future of digital communication. Striving to make an impact on the world.

EXPERIENCE

9/2023 | **Software Engineer** Research, \(\Labs\)

Google Project Starline San Francisco Bay Area

9/2023 | Software Engineer Devices & Services Product Area (DSPA)

12/2019 | Google Central Test Engineering San Francisco Bay Area

- $\circ\,$ Architected an ML system to make Nest and Pixel factory data more insightful and actionable
 - \circ 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
- Founded or co-founded efforts to scale software within entire organization: documentation overhaul (internal 350 new users/month, 750 new sessions/month), boost software testing (hundreds of new test cases), test station adoption org-common or team-common libraries (code reduction up to 70%)
- o Implemented initial factory data downloader (adopted by org, external teams), common audio test framework (entire team), and lead forums for knowledge sharing (team participation)
- o Factory audio software DRI for Nest Cam, Pixel Tablet, Pixel Buds Pro
 - \circ Saved \$120k in program capex by optimizing Nest Cam (52%) and Pixel Tablet (23%) test time
 - \circ Nest Cam's test script was **fastest within Google audio** (by 36%) during entire tenure
 - Nest Cam was Nest's first fully-remote program, from PROTO to MP

_Garmin, $2^{1/2}$ y

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

- o Designed new test architecture, supported test infrastructure, and wrote test plans
- o Implemented embedded software to synchronize configuration between two operating systems
- Lead a high-school focused engineering project to build and race a hovercraft, presented at Kansas State's ACM, guided children with Bring Your Child To Work Day projects, hosted tours

7/2018 | **Software Engineering Intern** Aviation

8/2017 | Garmin Interfaces/Data Routing Rolla, MO

o Implemented quality-of-life improvements for a highly-utilized aviation tool

 \circ Implemented validation system for said tool, resulting in 25% code reduction in affected classes

8/2017 | **Software Engineering Intern** *Automotive OEM*

5/2017 | **Garmin** Greater Los Angeles Area

• Brought-up and maintained automation suite to assess the performance of navigation routing

 \circ 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

12/2017 | **Team Lead & DRI** Aerospace

4/2016

SIT

Missouri S&T Satellite Team Stereoscopic Imaging Rolla, MO

• **Lead 6 person team** of undergraduate and graduate students to deliver nanosatellite payload: mid-flight, stereoscopic capture (via MR SAT) and 3D reconstruction of a paired satellite (MRS SAT)

- Wrote synchronous flight capture code across $2\times$ cameras to run on-device (Rasperry Pi)
- o Collaborated with chief engineer, program manager, and program subsystems to architect flight code
- Satellite is undergoing testing and reviews, scheduled for launch on Summer 2024

5/2017

Undergraduate Teaching Assistant Computer Science

8/2016 | Missouri University of Science and Technology Rolla, MO

- \circ Taught programming concepts to freshman/sophomore-level students across $3\times$ classes: Introduction To Programming (Class+Lab), Data Structures (Lab)
- o Created assignments, graded assignments, tests for class sizes upto 60 students
- o Automated grading with tools to detect plagrism, styleguide conformance, and course-specific rules

12/2014

Assistant *Employment Services*

9/2014

Jefferson College Hillsboro, MO

- 也 Rehired 5/2015-8/2015, 5/2016-8/2016
 - o Created user manual to serve as a guide for all new employment services assistants
 - o Maintained large student-employment databases via college's content management system
 - o Designed posters, fliers, and newsletters for campus announcements

8/2014

Web Developer

5/2014

Freelance De Soto, MO

- o Supported 6 projects for various clients: creating websites, mockups, data mining, data entry
- o Specialized in Wordpress and Bootstrap frameworks, crafting sites to meet client's requirements
- **G** | Software Engineer Project Starline **Google** 9/2023-present
- **G** Software Engineer Central Test Engineering **Google** 12/2019–9/2023
- △ | Software Engineer Safety & Datalink Garmin 8/2017-6/2018
- △ | Software Engineering Intern Interfaces/Data Routing Garmin 8/2017-6/2018
- △ | Software Engineering Intern Automotive OEM Garmin 5/2017-8/2017
 - Bachelor of Science Computer Science Missouri S&T 1/2015-12/2018
- 2**SIT** 2

Team Lead & DRI Missouri S&T Satellite Team 4/2016-12/2017

Undergraduate Teaching Assistant Computer Science Missouri S&T 8/2016-4/2017

Computer Lab Assistant Missouri S&T 1/2016-4/2017

- **Employment Services Assistant Jefferson College** 9/2014–12/2014, 5/2015–8/2015, 5/2016–8/2016 Web Developer **Freelance** 5/2014–8/2014
- Computer Lab Assistant Missouri Valley College 9/2013-5/2014

TECHNICAL

tech

Languages Python, C++, C, Bash, SQL, LATEX

Previous Swift, C#, Lua, Perl, Assembly, Lisp, Matlab, Vimscript, Basic, AppleScript, ActionScript

ML scikit-learn, TensorFlow, Colab, Google Cloud Platform (GCP)

Tools Git, i3wm, Make, regex, tmux, Tmuxinator, Vim, ZSH

Markup CSS, HTML, JSON, Markdown, reStructuredText, XML, YaML

Python Cython, matplotlib, numpy, pandas, pdb, pyenv, SciPy, sphinx, tox, venv

C++17 Boost, catch2, Ildb, STL, valgrind

stats

7 consumer projects, $\ 15$ interviews conducted, $\ 1$ intern hosted, $\ >700$ CLs submitted, $\ >100$ "tickets" closed, $\ 8$ managers reported to

kudos

 $7\times$ Google Peer Bonus, $3\times$ Google Spot Bonus, Googler Thank You Campaign receipient, {Garmin new-hire, Google new-hire, Starline} trivia winner, 1^{st} Place MegaMiner AI, Summa Cum Laude honors, $6\times$ Deans List Award, $18^{\text{th}}/229$ Missouri S&T ACM SIG Competition ranking

EDUCATION

12/2018

Bachelor of Science Computer Science

1/2015

Missouri University of Science and Technology Rolla, MO

GPA 3.83/4.0; Major GPA 3.88/4.0; **Summa Cum Laude**

Advisers Dr. Jennifer Leopold, Dr. A. Ricardo Morales, Dr. Simone Silvestri, Professor Clayton Price Associations Academy of Computing Machinary (ACM) [2/2016–5/2018], Missouri S&T Satellite Team (MSAT) [12/2017–5/2018], Institute of Electrical and Electronics Engineers (IEEE), [1/2016–5/2017] Coursework Artificial Intelligence, Evolutionary Computing, Data Mining, Object-Oriented Numerical Modeling, Analysis of Algorithms, Undergraduate Research, Differential Equations, Calculus, Linear Algebra, Statistics, Modern Physics, Physics, Discrete Mathematics, Web Design, Micro Embedded Design, Chemistry

Private Pilot Ground School 3/2019-5/2019

也 | **Jefferson** College 8/2014-12/2014 A+ scholarship

Missouri Valley College 8/2013-5/2014 Cross-Country/Track & Field scholarship

5/2013 | High School diploma

8/2009 | **De Soto Senior High** *De Soto, MO*

Associations Cross-Country (Class 3, $2 \times$ All-District individual [2011–2012], $1 \times$ All-District team [2012], #5 team state ranking [2012]), Track & Field, Future Business Leaders of America (FBLA)

5/2009 | Elementary, Middle School *diploma*

8/2000 | Sunrise R-IX School District De Soto, MO

Associations Cross-Country, Basketball, Computer Club, Quiz Bowl, Chess Club, Yearbook Design Awards Presidential Fitness Award [x8, 2001-2009], School Speech Contest Winner