ILLYA STARIKOV

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in linkedin.com/in/ILLYASTARIKOV

github.com/IllyaStarikov

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*

G Google Project Starline San Francisco Bay Area

9/2023 12/2019

G

Software Engineer Devices & Services Product Area (DSPA)

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
- o Founded or co-founded efforts to scale software within entire organization: documentation overhaul (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%)
- 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
 - Saved \$120k in program capex by optimizing Nest Cam (52%) and Pixel Tablet (23%) test time
 - \circ Nest Cam's test script was fastest (by $\sim 36\%$) within Google audio during entire tenure
 - o Nest Cam was Nest's first fully-remote program, from PROTO to MP

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
 - 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
 - o 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

Missouri S&T Satellite Team Stereoscopic Imaging Rolla, MO

- Lead 6 person team of undergraduate and graduate students to deliver nanosatellite payload: midflight, stereoscopic capture (via MR SAT) and 3D reconstruction of a paired satellite (MRS SAT)
- Wrote synchronous flight capture code across 2× cameras to run on-device (Rasperry Pi)
- o Collaborated with chief engineer, program manager, and program subsystems to architect flight code
- o Satellite is undergoing testing and reviews, scheduled for launch of Summer 2024

5/2017 8/2016 **Undergraduate Teaching Assistant** Computer Science

Missouri University of Science and Technology Rolla, MO

- 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 and tests for class sizes upto 60 students

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

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, LTEX

Previous Swift, C#, Lua, Perl

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

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

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

C++ boost, catch2, lldb, stdlib, STL, valgrind

 ${\tt misc}$

15 interviews, 1 intern, $7\times$ Google Peer Bonus, $2\times$ 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, $18^{th}/229$ 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 3.83/4.00; Major GPA 3.88/4.00; 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 I-III, Linear Algebra, Statistics, Discrete Mathematics, Modern Physics, Physics I-II, Chemistry, Micro Embedded Design Private Pilot Ground School 3/2019–5/2019

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 8/2000

Elementary, Middle School diploma

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