ILLYA STARIKOV

ILLISTARIKOV@GMAIL.COM

• +1 (XXX) XXX - XXXX

in linkedin.com/in/ILLYASTARIKOV

github.com/IllyaStarikov

¶ San Francisco Bay Area

EXPERIENCE

9/2023

Software Engineer Research, \(\Labs\)

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Google Project Starline San Francisco Bay Area

9/2023 12/2019 **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%
 - o 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
- 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
 - Saved \$120k in program capex by optimizing Nest Cam (52%) and Pixel Tablet (23%) test time
 - Nest Cam's test script was fastest within Google audio (by 36%) during entire tenure
 - o Nest Cam was Nest's first fully-remote program, from PROTO to MP

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12/2019

Software Engineer *Aviation*

7/2018 **Garmin**

Garmin Safety & Datalink Greater Kansas City Area



- o 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



- 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



- o 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)
- \circ 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
- 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

S&T

- 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 Rehired 5/2015-8/2015, 5/2016-8/2016

- Keimed 3/2013-0/2013, 3/2010-0/2010
- 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

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Software Engineer Project Starline Google 9/2023-present

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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

MISSOURI

Bachelor of Science Computer Science Missouri S&T 1/2015-12/2018

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

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

SET

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

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Employment Services Assistant Jefferson College 9/2014-12/2014, 5/2015-8/2015, 5/2016-8/2016 Web Developer Freelance 5/2014-8/2014

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Computer Lab Assistant Missouri Valley College 9/2013-5/2014

TECHNICAL

tech

Languages Python, C++, C, BASH, SQL, LTFX

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, pyeny, SciPy, sphinx, tox, veny

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

misc

15 interviews, 1 intern, $7 \times$ 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, $18^{th}/229$ Missouri S&T ACM SIG Competition ranking

EDUCATION

12/2018

Bachelor of Science Computer Science

1/2015 MISSOURI 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 I-III, Linear Algebra, Statistics, Discrete Mathematics, Modern Physics, Physics I-II, Chemistry, Micro Embedded Design

Private Pilot Ground School 3/2019-5/2019

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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× All-District individual [2011–2012], 1× 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