Illya Starikov

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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 (Mountain View)*

9/2023 **Software Engineer** *Devices & Services Product Area (DSPA)*
12/2019 **Google** Central Test Engineering *San Francisco Bay Area (Mountain View)*

- 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
- 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)
- 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 (by ∼ 36%) within Google audio** during entire tenure
  - Nest Cam was Nest's **first fully-remote program**, from PROTO to MP

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
  - Designed new test architecture, supported test infrastructure, and wrote test plans
- 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
- 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
- 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: mid-flight, 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)
- Collaborated with chief engineer, program manager, and program subsystems to architect flight code
- Satellite is undergoing testing and reviews, scheduled for launch of Summer 2024

5/2017 | **Undergraduate Teaching Assistant** *Computer Science*
8/2016 | **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)
- Created assignments, **graded assignments and tests for class sizes upto 60 students**
- 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

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

8/2014 | **Web Developer**
5/2014 | **Freelance** *De Soto, MO*

- Supported **6** projects for various clients: creating websites, mockups, data mining, data entry
- 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, LaTeX
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

misc | **15** interviews, **1** intern, **7**× Google Peer Bonus, **2**× 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**× 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**× 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