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*

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

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

Garmin, **2½** *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
  - 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 on `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× classes: Introduction To Programming (Class+Lab), Data Structures (Lab)
- Created assignments, graded assignments, 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

Software Engineer Project Starline **Google** 9/2023–present
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
Markup CSS, HTML, JSON, Markdown, reStructuredText, XML, YaML
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, **3**× Google Spot Bonus, Googler Thank You Campaign receipient, {Garmin new-hire, Google new-hire, Starline} Trivia Winner, 1st 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 3.83/4.0; 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

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