

Ruslan Akmyradov

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EDUCATION

University of Maryland, College Park

College Park, MD

BS in Computer Engineering & Mathematics / GPA: 3.9

Expected Graduation: May 2028

- **Relevant Coursework:** Data Structures & Algorithms, Proof-Based Linear Algebra, Proof-Based Multivariable Calculus, Proof-Based Differential Equations, Introduction to Computer Systems
- **Honors:** AIME Qualifier, American Foreign Service Association (AFSA) Scholar, IMC Prosperity 4 Final Round Qualifier, 5x Hackathon Wins (4 software, 1 hardware), Lockheed Martin CYBERQUEST Top 20

WORK EXPERIENCE

Software Engineer Intern

May 2026 — Present

Copperlane (YC W26)

San Francisco, CA

- Built a Python and FastAPI integration platform for four mortgage data systems, standardizing adapter interfaces, webhook ingestion, and conformance tests so new providers could be added without rewriting core ingestion logic
- Optimized data retrieval and cold starts across several pipelines using in-memory caching on EC2 and distributed caching in S3, reducing load times by 50–75%
- Built durable workflow infrastructure with DBOS to coordinate stateful cross-pod operations, manage request handoffs, and recover interrupted processes across the platform

Software Engineer Intern

Aug 2024 — Aug 2025

Temple Allen Industries

Rockville, MD

- Designed and implemented autonomous repositioning algorithms and controllers in C++ using ROS 2, enabling precise real-time control of industrial scissor lift systems
- Developed a ROS 2 odometry package implementing the Ackermann motion model using a Kalman-filtered IMU and rotary encoder system
- Built sensor drift correction and real-time visualization pipelines using C++, pandas, and Matplotlib, improving measurement accuracy by over 40%
- Tuned and deployed PID controllers in ROS 2 to improve robotic arm stability during surface-contact tasks

ACTIVITIES

Terps Racing EV

Oct 2025 – Mar 2026

- Developed a modular embedded graphics framework in C and LVGL for the real-time display of vehicle metrics on the driver dashboard
- Reduced boot times for a headless Linux distribution by developing custom startup scripts and removing services

PROJECTS

HotBillsNearYou.com - Best UI/UX YaleHack 2026 (hotbillsnearyou.com)

Mar 2026

- Developed a swipe-based platform for exploring state legislation and increasing civic engagement in local communities
- Implemented Elo-based bill-ranking and user-preference algorithms to connect users with like-minded communities
- Built and publicly deployed the application using Next.js, Flask, Supabase, and Docker

Daily Indigest - 2nd Place HopHacks 2025 (github.com/ruslannnn2/Daily-Indigest)

Sep 2025

- Built a real-time tweet visualization platform mapping geolocated trends using Deck.gl and SpacetimeDB
- Integrated an LLM-based analysis pipeline to generate automated explanations and sentiment insights for trending topics
- Developed backend endpoints for ingesting, flattening, and serving live trend and geospatial data streams

SKILLS

- **Languages:** C++, Python, C, Rust, TypeScript, JavaScript, Java, SQL, Verilog, Bash, MIPS Assembly, MATLAB
- **Frameworks & Libraries:** FastAPI, ROS 2, React, Next.js, Flask, pandas, LVGL, SpacetimeDB
- **Systems & Infrastructure:** Linux, PostgreSQL, DynamoDB, Kubernetes, DBOS, AWS, WebSockets, REST APIs
- **Tools:** Git, Docker, CMake, GDB, KiCad, Vivado, SOLIDWORKS
- **Interests:** CPU Architecture, Tennis, Audio Hardware, Compilers