

ANVAY TODKAR

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EDUCATION

Texas A&M University

B.S. Computer Engineering, Minor in Mathematics | GPA: 3.6/4.0

- Craig and Galen Brown Engineering Honors Program

College Station, TX

Aug 2025 - May 2029

EXPERIENCE

Student Technician (Modeling & Simulation)

Aug 2026 - Present

Bush Combat Development Complex (BCDC)

Bryan, TX

- Researching behavior trees and hierarchical finite state machines (HFSMs) for **DARPA** UAV/helicopter autonomy in **C++**, Unreal Engine, VBS4.

Software Engineering Intern

Jun 2026 - Aug 2026

DartIQ

Austin, TX

- Built Dockerized Python pipelines that parse source code, configs, and CI/CD manifests into a knowledge graph grounding LLM code generation.
- Implemented pre-merge policy gates running **15+** static security and style checks on agent-generated code.
- Added retrieval-augmented grounding against indexed repository symbols, cutting hallucinated API and function references by **87%** on the internal eval set.
- Designed immutable, queryable audit logs of agent actions for post-hoc review.

Machine Learning Engineer Intern

Jan 2026 - Jun 2026

Aerial Perspectives Studios

Remote

- Automated defect detection and privacy anonymization across **20,000+** aerial images with PyTorch, OpenCV, and YOLO-based models.
- Reached **97.2%** face and license-plate anonymization accuracy, validated against Singapore PDPA anonymization requirements.
- Cut image processing and inference time by **40%** by serving high-resolution datasets through REST APIs on AWS (EC2, S3, DynamoDB).

Project Lead

Aug 2025 - Dec 2025

Southwest Airlines

College Station, TX

- Led a **5-person** team on an Aggie Data Science Club project sponsored by Southwest Airlines, building a flight risk prediction system on **100,000+** flight and weather records with standardized **0-100** risk scores.
- Benchmarked LightGBM, Random Forest, and neural network models, improving recall **30%** over baseline, and used SHAP to surface the top risk drivers.
- Built an interactive risk dashboard presented to Southwest's data science team; awarded Best Project among sponsored teams.

PROJECTS

Karura Arm Software Team

Present

Karura Robotics

College Station, TX

- Developed **C++** robotic manipulation software with **ROS 2** and **MoveIt 2**, integrating grasp pose estimation, inverse kinematics, and collision-aware motion planning for autonomous object retrieval.
- Integrated camera-based object localization with **Python**, **OpenCV**, and **ROS 2** to estimate target poses and coordinate autonomous robotic-arm grasping.

Cascade | Y Combinator Startup School Hackathon, TypeScript, Next.js | github.com/RyK57/cascade-thcc Jul 2026

- Won **1st place** in **two** tracks (Most Technically Impressive, Best Use of Dynamic) for an iMessage agent that fulfills texted requests via AI, peers, or verified experts, with crypto settlement from an embedded wallet, shipped end-to-end in a **7-hour** Y Combinator Startup School Hackathon.
- Implemented Dynamic embedded-wallet payouts on task completion and a Linq-backed messaging layer spanning iMessage, RCS, and SMS.

TECHNICAL SKILLS

Languages: C++, Python, JavaScript, TypeScript

Robotics: ROS 2, MoveIt 2, Inverse Kinematics, Grasp Pose Estimation, Motion Planning, Computer Vision, Robotic Manipulation

ML / AI: PyTorch, OpenCV, YOLO, LightGBM, NumPy

Frameworks & Tools: Unreal Engine, VBS4, Next.js, Node.js, Git, Docker, Linux, Bash, AWS

HONORS

Citadel & Citadel Securities Quantitative Challenge Winner | Y Combinator Startup School | USACO Gold | Point72 Academy (**1%** acceptance)