

Akbarjon Kamoldinov

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EDUCATION

Bachelor of Science in Electrical Engineering

University of Missouri - Columbia

Expected May 2027

Columbia, MO

EXPERIENCE

AI Image Engineer

Precision and Automated Agriculture Lab, University of Missouri

Jan 2026 – Present

Columbia, MO

- Building OAK-D camera-based image processing pipelines for stall-housed sows.
- Developing compact pipelines to ingest multimodal farm camera data, run CNN/U-Net models, and output daily per-sow features for downstream UI/backend use.

Undergraduate Researcher – AI & LLM Systems

Distributed and Intelligent Computing Lab, University of Missouri

Jan 2025 – Present

Columbia, MO

- Working on reasoning-centered AI projects, including LLM-based chatbots and ARC (Abstraction and Reasoning Corpus) Benchmark puzzle solvers.
- Reviewing ARC-AGI-2 methods and implementing solvers to study generalization & compositional reasoning.

Undergraduate Research Assistant – Inkjet Printing & ML

Flexible Sensors, Electronics, and Machine Learning Lab, University of Missouri

Sep 2024 – Present

Columbia, MO

- Collecting droplet data on a Fujifilm Dimatix DMP-2850 by sweeping different variables for multiple inks.
- Labeling droplet outcomes from Drop Watcher and organizing 1000+ experiments into a dataset for machine learning.
- Using MATLAB/Python to generate outcome heatmaps and evaluate models for predicting stable jetting regions.
- Co-authoring a research poster on ML-based parameter optimization for inkjet-printed electronics and e-textiles.

Electrical Engineer Intern

NazarX – Aerospace R&D Center

Jun 2024 – Aug 2024

Tashkent, UZ

- Prototyped 10+ nanosatellite and drone components in SolidWorks, reducing estimated production cost by ~15%.
- Performed tolerance and stress simulations to meet ISO 2768 and FAA Part 23 design criteria.
- Led CubeSat training for 30+ students from the UAE, strengthening international collaboration.

Tutor & Academic Coach

Learning Center – University of Missouri

Oct 2024 – Dec 2024

Columbia, MO

- Tutored 50+ students from Algebra to Calculus III, increasing average exam scores by ~15%.
- Provided one-on-one coaching in study strategies and time management (8–10 hrs/week).
- Helped students adopt Microsoft 365 and Canvas workflows to improve productivity.

PROJECTS

Biomedical Robotic Hand – Research Project

Mechanical & Aerospace Engineering Dept., University of Missouri

Dec 2023 – Feb 2024

Columbia, MO

- Implemented Python signal-processing (FFT, filtering) for a robotic blood-pressure sensor prototype.
- Assisted with data collection and analysis for 20+ human-subject trials.
- Collaborated with graduate students to test hardware and summarize results in internal reports.

TigerHacks – FridgeIt (Food Waste Reduction App)

University of Missouri – Hackathon Project

Nov 2023 & Nov 2024

Columbia, MO

- Built a full-stack app (Python/Flask, recipe API, CRUD features) to track fridge inventory and suggest recipes.
- Implemented authentication and search filters while collaborating in a 3-person team; project placed 2nd twice at TigerHacks.

SKILLS & TECHNICAL COURSEWORK

EDA Tools & Programming: Revit, NI Multisim, PSpice, SolidWorks, AutoCAD; Python, C/C++, JavaScript, R

Test & Measurement: Oscilloscopes, function generators, multimeters, soldering

Relevant Coursework: Microprocessor Engineering, Circuit Theory I & II, Electrical Circuits & Signals I, & II
Algorithm Design & Programming, Logic Systems, Electromagnetism