

Kartikey Pandey

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EDUCATION

Pennsylvania State University

Bachelor of Science, Computer Science, Minor in Entrepreneurship

Cumulative GPA: 3.5/4.00

University Park, PA

August 2022 – May 2026

EXPERIENCE

Snap Inc. Spectacles Student Accelerator Program

AR Developer - Team Virtus

January 2025 – Present

Remote

- Leading AR development as **Lead AR Developer** on Team Virtus, securing **\$35,000** funding for Project Elementals and **\$15,000** for motion sickness reduction technology
- Architecting Project Elementals, a multiplayer Avatar-inspired AR game using **Lens Studio** and **TypeScript**, enabling players to become elemental benders in shared AR environments with real-time synchronization
- Engineering advanced stabilization algorithms to eliminate motion sickness in Spectacles, pioneering comfortable AR usage in vehicles and public transit environments

Penn State College of Engineering Collegiate Hackathon Team

Founder & President

Spring 2024 – Present

University Park

- Founded collegiate hackathon team with 7 core members and 20+ rotating participants, leading Penn State from national rank **185 to 74** in hackathons within one year
- Achieved **8x hackathon winner** status across competitions nationwide, demonstrating consistent technical excellence and leadership
- Developed dual-track program enabling beginners to build real-world projects with judge feedback while showcasing experienced members' skills to recruiters at national competitions

Intel

AI Software Engineer Intern - OpenVINO Team

June 2020 – April 2021

Remote

- Built ML training pipeline reducing model deployment time by 33% (3 days to 2 days)
- Implemented **Computer Vision** system for chip defect detection using **OpenCV**, achieving **97%** accuracy on 100,000+ test images
- Designed **BERT**-based document classifier for technical specifications, processing 1000+ documents daily with **90%** accuracy

PROJECTS

Reality Rush – HackPSU Snap AR Hackathon 1st Place | *TypeScript, Lens Studio, Spectacles SDK* October 2024

- Developed "Reality Rush" AR fitness trainer using **Snap Spectacles**, winning \$5,000 prize among 200+ participants at Snap's AR Hackathon
- Implemented real-time pose tracking using **Lens Studio's ML Kit**, detecting 5 key exercises with **90%** accuracy and providing form feedback in under 100ms
- Developed gesture-based UI using **Spectacles' Hand Tracking API**, enabling menu navigation and workout selection through pinch gestures
- Project: <https://devpost.com/software/reality-rush>

EyeSnap – HackHarvard 2nd Place | *Python, TensorFlow, React Native*

October 2023

- Created smartphone-based Diabetic Retinopathy detection system using **TensorFlow** and **OpenCV**, reducing diagnostic equipment costs from **\$50,000** to **\$100** per setup
- Trained CNN model on 10,000+ retinal images using **PyTorch**, achieving **92%** accuracy on validation set of 2,000 images from NIH database
- Launched **React Native** app with offline processing capabilities, handling 100+ images/day and reducing diagnosis time from 2 days to 10 minutes
- Project: <https://devpost.com/software/eyesnap-diabetic-retinopathy-detection-with-diascan>

TECHNICAL SKILLS

Languages: Java, Python, SQL, JavaScript, TypeScript, HTML/CSS, C/C++, C#, Go, PHP

Frameworks: React, Vue.js, Next.js, Node.js, FastAPI, Flask, Spring, TensorFlow, Angular

Developer Tools: Git, AWS, Google Cloud Platform, Docker, Kubernetes, PostgreSQL, NoSQL, Kafka, JIRA, PyTest, Selenium, Linux

Design Tools: CAD, Solidworks, Arduino, Fusion360, Blender