

Rakesh Pillai

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Technical Experience & Projects

Slingshot

Jul. 2020 – Dec. 2020

Software Engineering Intern

- used the React Native framework to develop a cross-platform app to collect gesture pattern (swiping, tapping, etc.) data from users
- utilized Firebase platform to authenticate users and store data collected from users
- analyzed data collected from app using Python and built multiple Machine Learning models using a K-Nearest Neighbors algorithm

Irys

Oct. 2021

HackDuke Project

- built a web app using Node.js and React
- constructed a python script using preexisting libraries to track eye movement and determine when the user is distracted from the screen
- connected the web app to CockroachDB to store data collected
- won 3rd place in the Health and Wellness track @ HackDuke Code for Good

EDUCATION

Thomas Jefferson High School for Science and Technology

June, 2021

- 4.33/4.00 (Weighted GPA)
- 1570 SAT (800 Math, 770 English)
- 2 years of Varsity Basketball, Vice-President of German Honor Society, Treasurer of Innovations and Concepts in Engineering Club, Team Captain of Rocketry Team
- Relevant Coursework: AP Calculus AB & BC, Multivariable Calculus and Matrix Algebra, AP Computer Science A, Parallel Computing, AP Physics C: Mechanics and Electricity and Magnetism

Virginia Tech

2025

- Calhoun Honors Discovery Scholar
- volunteer on the BattleDrone undergraduate research project @ Hume Center
 - currently documenting code and porting code from Matlab to Python
- electrical Engineer for the RoboGrinder team (the team participates in the annual RoboMaster competition)
 - currently building a supercapacitor for our robots

SKILLS & INTERESTS

- **Skills:** proficient in Java and C, comfortable with Python, HTML, and JavaScript
- **Interests:** creating Python automation scripts; competing in capture the flag competitions; solving Rubik's cubes; hiking; snowboarding; playing basketball