Anunithaa Rajakumaresan

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SUMMARY

I am first-year computer engineering student with a sophomore-standing in terms of credits and with plans to pursue a minor in quantum computing. I am interested in emerging fields such as machine learning and how reinforcement learning may be utilized in the medicinal field. Some of my hobbies include learning game development in Unity, videography, and 3-D printing models.

EDUCATION

**The University of Maryland College Park, MD College Park, MD**

## *•* Bachelor of Sciences, Computer Engineering | GPA: 3.92 May 2028

**South Brunswick High School Monmouth Junction, NJ**

*•* Mathematics Award (May 2024) | Exemplary Achievement in Math | GPA: 4.57 June 2024

EXPERIENCE

**Hackathon Architect,** *Bitcamp,* MD Sep 2024 – Current

*•* Oversaw partnerships and events with machine learning campus organizations (BigTh!nkAI, AI/ML club, etc.)

*•* Hackathon manager in charge of all workshops, scheduling, and promotional events, garnering 2000+ sign-ups from several states and majors.

*•* Oversaw judging for 50\* machine learning submissions for award ceremony judging.

**President**, *Code4 Tomorrow*, CA May 2023 – Aug 2024

* Managed and ran all 4 departments (Outreach, Volunteering, Classes, and Finance) with weekly meetings.
* Planned classes with 160+ sign-ups and created several fundraisers, hackathons, and workshops.
* Created Hack4Tomorrow, which encompassed several workshops, had 50+ sign-ups globally and sponsorships from Desmos

**Researcher,** *Waksman Institute of Microbiology,* NJ Aug 2022 – Sep 2021

*•* Utilized 4Peaks software to digitally sequence DNA and submitted two sampled to NCBI

*•* Used databases and pattern recognition to identify and research protein sequences.

PROJECTS

# Next Stop March 2024

* Website that helps users track Amtrak train delays and find corresponding activities to do around the area considering the delay time and user-interests as well as create an itinerary for the user
* Built using the Amtrak API for train data, Google Places API for finding nearby locations, Gemini API for itinerary generation as well as location matching, and the Routes API to find travel time between locations
* Front-end developed with React and styled with Tailwind CSS to create the UI; Back-end developed with Express to handle API fetching

# HydroQuack Aug 2024 – Dec 2024

* An Over-Terrain-Vehicle designed to traverse obstacles, collect a 20 mL water sample, detect pollutants in water, and measure water height for ENES100: Introduction to Engineering
* Used Arduino IDE to program several functions including mechanical arm movement, machine learning camera, motor control for 2-wheels, and ultrasonic distance sensors
* Used an ESP32 machine learning camera for pollutant detection and specifically trained it with reinforcement learning via 200+ pictures
* Navigation dependent on distance sensors’ detection of obstacles and recorded water depth via distance sensors

**Triton** Sep 2020 – Jun 2024

* Created rudimentary shooter game using Unity as part of an ocean pollution awareness initiative.
* Game would provide pollution facts and information after every round to encourage user to spark change
* Won several entrepreneurial awards for prototype (semi-finalists in the Diamond Challenge, top 250 in Blue Ocean, as well as local competitions)

SKILLS

**Languages/Tools:** Java, C++, TypeScript, SQL, Python, React Vite, Node, Tailwind CSS, Express, Arduino