JOVAN YOSHIOKA

Java, Python, JavaScript, HTML/CSS, PHP, SQL
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EDUCATION

University of Tennessee, Knoxville, Tickle College of Engineering — Knoxville, Tennessee
Bachelor of Science in Computer Science, Minors in Machine Learning & Data Science — Graduation: May 2024

- Cumulative GPA: 3.99/4.0 | Honors | Dean's List: Fall 2020 - Fall 2022
- Courses: Data Structures and Algorithms (**C++**), Systems Programming (**C**), Software Engineering

EXPERIENCE

Microsoft Corporation — Redmond, Washington
Software Engineer Intern — June 2022 - August 2022

- Developed dynamic navigation in SharePoint (**React, Fluent UI**) for millions of users to quickly access apps.
- Implemented **RESTful** API proxy endpoints to check user permissions in cross-geo scenarios (**C#**).
- Utilized virtual machines and **Fiddler** to simulate cross-geo calls, enabling debugging and optimization.
- Applied dark launch methods and created telemetry dashboards to find/patch bugs, ensuring 99% success.

University of Tennessee — Knoxville, Tennessee
Undergraduate Research Assistant — March 2021 - May 2022

- Created an app (**HTML/CSS**, **JavaScript**, **PHP**, **MySQL**) that integrates coding into existing K-5 curriculum.
- Implemented an API to translate and execute custom block-based code (**Blockly**) as **JavaScript**.
- Designed the UX/UI in collaboration with an intercollegiate team and K-5 teachers spanning 2 school districts.
- Led a professional development workshop for 40+ K-5 teachers to gauge app interest and gain feedback.

Oak Ridge National Laboratory — Knoxville, Tennessee
Software Engineer Intern — June 2021 - August 2021

- Built an app (**React**, **Django**, **SQLite**) that visualizes real-time traffic, parking, and EV charging data to enable sustainable campus transportation, improving travel time, safety, and fuel efficiency ($150K funding).
- Created a vision algorithm (**Python**, **OpenCV**) to count vehicles/measure speed; 97% accuracy 1K vehicles.
- Integrated **FFmpeg** and multiprocessing to evaluate several real-time videos at once, collecting data 24/7.
- Published a paper about the project at the 2022 International Conference on Transportation and Development.

Oak Ridge National Laboratory — Knoxville, Tennessee
Full Stack Developer Intern — June 2019 - July 2019

- Developed an app (**AngularJS**, **C#**, **Bootstrap**) that visualizes national transportation data to direct infrastructure improvements used by all 50 state DOTs and referenced in 3K papers ($10MM funding).
- Implemented a custom variables feature to tailor query results to users' specific needs improving the UX.

PROJECTS

Drone Fleet, Individual Project — July 2020 - Present

- Programming connected drones (**Python**) to perform actions, e.g. follow, elevate, etc., via UDP connection.
- Devising a vision algorithm (**OpenCV**) to detect a designated commander and track body joint movements.

AlienX Robot, Team Project — January 2020 - March 2020

- Programmed all control systems (**Java**, **WPILib**) of an $8K 120lb multi-subsystem mobile robot.
- Accelerated scheduler-based autonomous routines by 60% by employing parallelism and path following.
- Demoed to 20K+ people at STEM outreach events. Rank 2 (62 Competitors) at regional competition.

LEADERSHIP

FIRST Robotics Competition, Programming Mentor — September 2020 - Present

- Teaching 6 high schoolers to code robot subsystems, autonomous routines, and vision algorithms (**Java**).
- Guiding students through debugging code to provide exposure to problem solving and teamwork.

Integrated Business and Engineering Program, 2024 Cohort Member — April 2021 - Present

- Selected as one of 24 engineering/business students based on leadership capabilities and academic achievement to engage in executive mentorship, exclusive speaker series, and cross-disciplinary curriculum.
- Applying systems-thinking and strategic decision-making to collaborative, real-world projects.

HONORS & AWARDS

- Best Rookie Hack & Most Market Ready (78 Competitors), UTK Hackathon 2021: schedule generator app.
- 1st Place (150 Competitors, Undergraduate & Graduate), ORNL Intern Symposium 2021: scientific poster.
- 1st Place (55 Competitors, State & National), FBLA 2019: e-book management app (**AWS Cloud9**, **EC2**).