Ryan Spears

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Summary

Software engineer with 4+ years of experience developing scalable web and machine learning applications. Just completed my master's at Carnegie Mellon University in just two semesters. Recognized for rapidly progressing from intern to senior developer, and passionate about mentoring others and driving operational efficiency.

Online Presence: [Github](#) | [LinkedIn](#) | [Personal Site](#)

Experience

Benco Dental
Senior Software Developer | 05/2021 - Present

- Mentor junior developers, fostering a culture of learning and development.
- Managed and maintained **20+ critical internal applications**, ensuring high reliability, performance, and minimal downtime.
- Led adoption of advanced CI/CD pipelines, reducing software delivery time by **40%.**
- Designed and implemented complex **SQL** queries and ETL processes to support and enhance application performance, data consistency, and integration across critical internal systems.
- Resolved critical system issues, maintaining a high uptime with expertise in **C# (.NET) and Python**.
- Earned three promotions from intern to senior developer within three years—**fastest progression in company history**.

Carnegie Mellon University Robotics Institute | PA, Pittsburgh
Researcher | 10/2024 - 05/2025

- Designing and developing audio classification algorithms using Python and machine learning to enhance robotic perception in agricultural applications.
- Creating robust data pipelines using ROS (Robot Operating System) for efficient real-time audio data collection and analysis.
- Independently conducting experimental evaluations to optimize model accuracy in classifying environmental sounds, aiding autonomous decision-making for agricultural robotics.
- Documenting methodologies and results to support future advancements in precision agriculture technologies.

Publications

[Audio-Visual Contact Classification for Tree Structures in Agriculture](#) | Humanoids 2025

Education

Carnegie Mellon University | Pittsburgh, PA
M.S. Software Engineering | 05/2025

- 3.99 GPA
- Accelerated program completion in **2 semesters** (normally 4 semesters).

Florida International University | Miami, Florida
B.A. Computer Science

- 3.82 GPA
- Completed degree in **2 years** (normally 4 years)

Skills

HTML, CSS, JavaScript, Python, SQL, SQL Server Management Studio, .NET, C#, React.js, Next.js, Rust, Git, Computer Science, ROS, CI/CD, Bamboo, DevOps