

# Sydney Lester

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Adventurous and creative computer science student with a passion for problem-solving, user experience design, and databases. Skilled in organizing both data and teams, with strong leadership experience. Seeking a software engineering role to work on impactful projects in gaming or environmental technology.

**Available for full-time opportunities starting June 2025. Open to relocation or travel.**

## Education

**Duke University** | Durham, NC

May 2025 (expected)

*Bachelor of Science | Computer Science*

*Minor | Environmental Science & Policy*

- **Systems:** Architecture, Databases, Security
- **Data Science:** Machine Learning, Data Analysis, Optimization
- **Theory:** User Experience (UX) Design, Discrete Mathematics, Algorithms, Data Structures, Cryptography
- **Environmental:** Conservation Engineering and Technology, Policy and Management

Semester abroad: University of Otago | *Dunedin, New Zealand* | 2023

## Experience

**Staff Software Engineer (Part-Time)** | Blooket | *Remote*

August 2024 - Present

- Developed a library of front-end game components using React and Next.js for [blooket.com](https://blooket.com), a site with ~8 million monthly active users.
- Designed and implemented gaming and administrative user experience, platform services, microservice APIs, and automations.
- Created a curriculum management module for educators to design problem sets, lesson objectives, and contests.
- Collaborated with other engineers on service integrations, optimizations, and data contracts

**Software Engineering Intern** | Blooket | *Remote*

May 2024 – August 2024

- Developed arcade-style and puzzle-based single-player web games using Phaser 3 and React.
- Collaborated with artists and education professionals to optimize the learning and entertainment value of each game

**Teaching Assistant – Discrete Math** | Duke University | *Durham, NC*

January 2024 – May 2024

- Assisted faculty for very large course sections by preparing and evaluating material related to Boolean algebra, proofs, combinatorial optimization, and graph theory.
- Improved student success by developing sample problems and solutions, offering structured guidance during office hours, and providing detailed feedback on assignments.
- Collected metrics to provide insights to improve student comprehension.

**Research Intern** | Duke University Marine Lab | *Beaufort, NC*

May 2022 – July 2022

- Collected and analyzed telemetry and visitor data to identify conservation strategies for loggerhead sea turtles on Cape Lookout National Seashore, presenting recommendations to optimize park policies.
- Worked with National Park Service rangers and marine scientists to derive insights from diverse data sets.

## Skills

- **Programming Languages :** Java | C/C++ | Go | Python | JavaScript | TypeScript | R | Bash | SQL | XPath
- **Web:** HTML5 | CSS3 | React | Next.js | Flask | Node.js
- **Databases:** MongoDB | PostgreSQL | Database Design
- **Platform and DevOps:** Git | GitHub | Docker | Containers | REST | OAuth | PKI
- **Machine Learning and Data Science:** PyTorch | NumPy | Pandas | scikit-learn
- **Game and UX Design:** Phaser 3 | Photoshop | Illustrator
- **Practices:** Version Control | Prototyping | CI/CD | Testing | Debugging | Troubleshooting
- **Soft Skills:** Team Leadership | Project Management | Problem Solving | Documentation

Personal Projects

- Starify | Data Visualization | [github.com/sydlester/starify-app](https://github.com/sydlester/starify-app)2023
- Developed a web client application that aggregates and visualizes a user's Spotify listening data in a retro arcade-style UX.
  - Leveraged REST APIs and integrated Spotify's OAuth for authentication, focusing on enhancing data presentation for users.
- eCommerce Marketplace | Retail Website | [github.com/sydlester/mini-amazon-cs316](https://github.com/sydlester/mini-amazon-cs316)2022
- Built a full-stack multi-tier application simulating an eCommerce site with buyer and seller functions, including inventory management and CI/CD implementation.

Leadership

- President | Duke Club Ski & Snowboard2022 - Ongoing
- Served as the chief executive of one of the largest non-varsity athletic organization at the University.
  - Managed an annual budget of over \$100,000, organized training trips, and grew team membership through recruiting and social engagement.
  - Led efforts to improve financial accessibility by establishing scholarships and an inventory of team-owned equipment through grants and sponsorships.
- Officer and Secretary | Duke Sports Clubs Executive Board2024-Ongoing
- Oversaw funding allocations, administration, and policy for 32 sports clubs.
  - Documented and communicated board decisions to club leaders and university officials.

Interests

- **Competitive Snowboarding:** U.S. Collegiate Freestyle regional qualifier (2022, 2023)
- **Adventure Travel:** Organized backpacking trips in New Zealand (2023) and the Swiss Alps (2024).
- **Graphic and Industrial Arts:** Digital and Traditional Illustration, Murals, Crochet
- **Photography:** Duke Chronicle sports photographer (2022 - Present)
- **Music:** WXDU Campus Radio DJ (2022- Present)