

# Luke Moenning

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## EXPERIENCE

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- GoDaddy** | *Python, TypeScript, AWS, PySpark, React.js, SQL* June 2024 - August 2024  
*Software Engineer Intern* Seattle, WA
- Increased the speed of new metric onboarding for the experimentation platform by **100%** by releasing a query validation feature
  - Built out supporting Python endpoints, integrated AWS IAM authentication through custom policies, and delivered a new Next.js page on the platform to enhance user interaction and feature accessibility, committing code across **4** repositories
  - Designed and implemented enhancements to the feature's query runner backbone to streamline integration with **2** adjacent projects
  - Achieved a **73%** reduction in AWS costs by optimizing Spark queries integrated with EMR and Step Function workflows
- Sage Bionetworks** | *Java, AWS, SQL* January 2024 - May 2024  
*Software Engineer Intern* Seattle, WA
- Reduced data latency for the Synapse data platform from an average of **60 minutes** to **200 milliseconds** for a team of **20+** researchers by designing and implementing a real-time notification system using webhooks
  - Developed an algorithm utilizing AWS SQS to process and distribute batches of **1,000,000+** simultaneous notifications
  - Created APIs for webhook registrations and additional data validation services for **100k+** monthly users
  - Enhanced MySQL performance by developing an algorithm to parse SQL statements and optimize memory allocation by **28%**
- HawCHI Lab** | *JavaScript, Node.js, Python, AWS, DynamoDB* January 2023 - December 2023  
*Undergraduate Researcher* Iowa City, IA
- Improved executive skills in **16** preschools and special education classrooms by developing Story Carnival, a full-stack learning management system (LMS) that allows educators to track, reflect on, and analyze cumulative student progress
  - Researched **12** LMSs and **5** learning standards, including Head Start and NAEYC, to align the tool's design with best practices
  - Gathered feedback from educators by demoing a prototype of the tool, incorporating suggestions to improve user experience
  - Converted **2** convoluted Qualtrics surveys into a simple, custom solution using SurveyJS, improving project maintainability and UX
- W.R. Berkley Corporation** | *React.js, GraphQL, TypeScript* May 2023 - August 2023  
*Software Engineer Intern* Urbandale, IA
- Developed support for quoting Monoline General Liability policies with the launch of a React.js internal insurance portal
  - Built GraphQL services and resolvers to enhance client-side data representation and error handling
  - Accelerated development time for **70+** engineers by rewriting **50+** test files to remove a slow and deprecated library

## LEADERSHIP EXPERIENCE

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- Association for Computing Machinery (ACM)** December 2023 - May 2024  
*Secretary and Treasurer* Iowa City, IA
- Organized and facilitated weekly club meetings with **30+** members, managing a budget of **\$15,000**
  - Co-orchestrated UICC, ACM's annual computing conference with **100-200** attendees
- Mathnasium - The Math Learning Center** June 2019 - December 2022  
*Lead Instructor* Iowa City, IA
- Streamlined teaching provided by leading instructional training sessions for a staff of **10+** instructors
  - Provided individualized instruction to **100+** students, ranging from kindergarten to Calculus

## PROJECTS

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- SolarViz** | *Python, Streamlit, Docker* September 2023
- Identified **3** faulty points in Iowa City solar panel arrays by building a data analysis and visualization platform using Python
  - Managed development and deployment across a team of 4 by containerizing the project utilizing Docker
- EduQuest** | *React.js, GraphQL, AWS, DynamoDB, OpenAI API* July 2023
- Won **2nd** place YouthCodeX 2023 by creating a learning platform for children utilizing AI for problem generation and tutoring
  - Implemented GraphQL APIs to handle CRUD operations on user and problem data stored in DynamoDB

## SKILLS

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- **Languages:** Java, Python, JavaScript
- **Libraries and Frameworks:** React.js, TypeScript, Next.js, Node.js, PySpark, Spring, Jest, JUnit
- **Tools:** GraphQL, Amazon Web Services (AWS), SQL, MySQL, DynamoDB, Docker, Kubernetes, Git, Jenkins, Maven, Linux

## EDUCATION

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- The University of Iowa** Anticipated May 2025  
*Bachelor of Science Computer Science, Bachelor of Science Mathematics - GPA 3.67* Iowa City, IA
- Artificial Intelligence, Modeling, and Simulation Certificate + Psychology Minor
  - Courses: Data Structures, Algorithms, Artificial Intelligence, Computer Organization, Networks, Numerical Methods, Optimization