Luke Moenning

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EDUCATION

The University of Iowa Anticipated May 2025

Bachelor of Science Computer Science, Bachelor of Science Mathematics - GPA 3.83 *Iowa City, IA*

- Artificial Intelligence, Modeling, and Simulation Certificate, Psychology Minor
- Extracurriculars: ACM, Intramural Soccer
- Courses: Data Structures, Algorithms, Artificial Intelligence, Software Development, Computer Organization, Networks, Calculus I-III, Linear Algebra, Numerical Methods, Discrete Math

EXPERIENCE

Research Intern | *JavaScript, Node.js, Python, AWS, DynamoDB* January 2023 – Present

Project: Story Carnival *Iowa City, IA*

- Developed a teacher reflection tool that will be demoed for **16** preschools that tracks classroom progress
- Designed a front-end UI using JavaScript and HTML/CSS and built supporting back-end APIs with Node.js, Python, Lambda, API Gateway, and DynamoDB

Software Developer Intern | *Next.js, GraphQL, Kubernetes, Jenkins* May 2023 - August 2023

W.R. Berkley Corporation *Urbandale, IA*

- Improved an agile team's velocity by **20%** by efficiently handling tickets and meeting sprint deadlines while developing a micro front-end, internal portal
- Optimized GraphQL services and resolvers to enhance client-side data representation and error handling
- Accelerated development time for **70+** engineers by refactoring **50+** test files, expediting the CI/CD pipeline for multiple applications

PROJECTS

SolarViz | *Python, Streamlit, Docker* September 2023

- Worked closely with a team of 4 to develop a platform to visualize and analyze solar panel data
- Identified **3** weak points in solar panel arrays located in Iowa City, providing valuable insights to the solar companies

EduQuest | *React.js, GraphQL, AWS, DynamoDB, OpenAI API* July 2023

- Created a full-stack, online learning platform for children utilizing AI for problem generation and student tutoring
- Won **2nd** place in the Education Challenge at the YouthCodeX 2023 Hackathon
- Implemented a GraphQL API to handle CRUD operations on user and problem data stored in DynamoDB, allowing for efficient and secure data manipulation

ConsultantGPT | *Python, OpenAI API* July 2023

- Engineered an AI agent designed to provide consulting advice to businesses
- Established an efficient algorithm that enhances results by **150%**, resulting in higher quality consulting for customers

Warp | *Java, JUnit, JSDoc, UML* November 2022

- Implemented a program to visualize and analyze channel communication in a wireless sensor network
- Utilized common industry practices such as test-driven development, proper documentation, agile, and artifact creation

LEADERSHIP EXPERIENCE

Soccer Coach March 2023 – May 2023

Northwest Junior High *Coralville, IA*

- Mentored and coached **63** seventh and eighth-grade boys, fostering team development and individual player growth
- Established the program for success during its inaugural year by taking initiative in organizational decisions and working directly with executive members of the school's staff

Lead Instructor June 2019 – December 2022

Mathnasium - The Math Learning Center *Iowa City, IA*

- Led a team of **10+** instructors to successfully help students recover from learning setbacks caused by COVID-19
- Provided individualized instruction to **100+** students, ranging from kindergarten to Calculus

SKILLS

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