Dylan Khor

515-715-7665 | dkhor@iastate.edu | linkedin.com/in/dylan-khor-a9a329234 | github.com/dkhor2003

Education

Iowa State University — Ames, IA
Master of Science in Computer Science (CGPA: 3.96) — *Aug. 2023 – Dec. 2025*
- **Thesis:** "Sampling-based Optimized Adaptive Discretization and its Applications in Robotics"

Iowa State University — Ames, IA
Bachelor of Science in Bioinformatics and Computational Biology (CGPA: 3.98) — *Aug. 2020 – May 2023*

Experience

Apprentice Software Engineer — May 2025 – Aug. 2025
Source Allies — *Urbandale, IA*
- Collaborated cross-functionally to enhance the account management system's observability and internal chatbot user experience following Extreme Programming (XP) principles.
- Deployed IaC using Terraform, integrating Azure Functions and Service Bus for event-driven, asynchronous communication between HR tool and dependent systems, reducing response times.
- Migrated Azure applications to OIDC authentication, removing secret rotation dependencies and mitigating credential exposure risks.
- Built multi-session chatbot functionality with FastAPI (Python) and React TypeScript, enabling parallel, context-aware conversations for HR and developer workflows.
- Enhanced RAG pipeline with GitHub documentation integration and Cohere Rerank 3.5 via Amazon Bedrock, improving response accuracy by 10%.

Graduate Research and Teaching Assistant — Aug. 2023 – Dec. 2025
Iowa State University — *Ames, IA*
- Conducting research on adaptive discretization and safety testing techniques in robotics to improve real-world applicability and efficiency.
- Applied expertise in Python programming, algorithm design, and machine learning to mentor students toward academic success.
- Recognized with the **Teaching Excellence Award (Fall 2024)** for outstanding performance.

Voting Machine Research Assistant — Jun. 2023 – Aug. 2023
Iowa State University — *Ames, IA*
- Tested usability of a third-party voting machine with disabled study participants to assess accessibility and user experience.
- Used FFmpeg and Rubber Band software to tune audio pitch for privacy protection.

Projects

Portfolio Website | *React, Vite, Tailwind CSS, Three.js*
- Developed a personal portfolio optimized for accessibility and responsiveness across devices.
- Integrated interactive 3D visuals with React Three Fiber for an engaging user experience.

3D Modeler | *C++, Vulkan*
- Built a computer graphics interface for 3D object modeling, compatible with tools like Blender and SolidWorks.

Checkers-AI | *Java*
- Created a single-player Checkers game featuring an AI opponent and intuitive graphical interface.

Randomized Progressive Deblurring for Image Classification | *Python, PyTorch, OpenCV*
- Proposed a new training approach for image classification models, achieving a 24% average improvement in generalization.

Technical Skills

Languages: Python, TypeScript, JavaScript, Java, C++, HTML/CSS, SQL, Bash
Frameworks & Libraries: React, Tailwind CSS, Node.js, Jest, FastAPI, PyTorch, OpenCV, MuJoCo
Cloud & Infrastructure: Azure (**Fundamentals Certified**), AWS, Terraform
Developer Tools: Git, Docker, Linux, Postman, VS Code