

ANDY DRAFAHL

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EDUCATION

Iowa State University, Ames, Iowa

August 2022 - May 2026

Bachelor of Science, Software Engineering, Minor in Technical Communication – In Progress, 3.68 GPA

Relevant Coursework:

- Problem Solving in Software Engineering I & II (C)
 - Object-oriented Programming (Java)
 - Introduction to Data Structures (Java)
 - Digital Logic (Verilog)
 - Introduction to Computer Architecture and Machine-Level Programming (ARM64)
 - Theoretical Foundations of Computer Engineering
 - Software Architecture and Design (Ruby)
 - Introduction to Database Management Systems (MySQL)
 - Introduction to Software Testing (Java)
 - Software Testing (Java)
 - Advanced Programming Techniques (C, C++)
 - Software Development Practices (Java)
 - Construction of User Interfaces (HTML, React)
 - Introduction to Operating Systems (C)
 - Introduction to the Design and Analysis of Algorithms
 - Probability and Statistics for Computer Science
 - Senior Design (React, MySQL)
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PROJECTS

KSwap

- An Android K-Pop photo card trading app with custom listings, a market, direct messaging, and seller info.
- Designed in Figma, developed in Android Studio, version controlled with Git and GitLab.
- Agile methodologies, SCRUM, and CI/CD employed to support development with a team of four people.

CasualConvoAI

- A locally running conversational AI built to run in Python and optimized to run on low-end hardware without the need for a GPU, made possible by combining several open source tools and controlling them with one UI.
- No API's required, no costs incurred. Every part of the conversation, from speech recognition, to AI response generation, to speech synthesis, runs without the need for internet access.

Educational Piano Game

- A game that uses a midi keyboard and actual sheet music to make learning notes and rhythms easy and fun; a work in progress.
 - Front end development, backend development.
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STRENGTHS AND EXPERTISE

- Programming languages: Java, Python, C, and C++
 - Version Control Systems: Git, GitHub, GitLab, CLI
 - Web Development: HTML, CSS and JavaScript
 - App Development: Figma (design), Android Studio
 - Assembly Code: ARMv8, LEGv8
 - TDD: JUnit, Red-Green-Refactor
 - Software Development: SCRUM, Agile, CI/CD
 - Design and Analysis of Algorithms
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WORK EXPERIENCE

Warehouse Worker, Inventory Control

May 2025 - July 2025

Conser Moving and Storage, Jacksonville, Florida

- Demonstrated effective teamwork while working with a team of movers on the warehouse floor.
- Performed a variety of tasks diligently, including loading and unloading trucks, padding and storing items, and ensuring inventory was accounted for.
- Adhered to a consistent schedule, always arriving early.

Camp Counselor and Team Coach

May 2024 - August 2024

Camp War Eagle, Rogers, Arkansas

- Worked alongside co-counselors to manage daily routines, address individual needs, and guide discussions.
- Coached sports teams of various ages, promoting strategy, effort, enthusiasm and sportsmanship.
- Oversaw high-safety activities like the skate park and the archery and riflery ranges, balancing risk management with skill development and ensuring an engaging, safe experience.

Teaching Assistant for Introductory Python Class

August 2023 - December 2023

Iowa State University, Ames, Iowa

- Supported students' learning through hands-on instruction and personalized feedback while leading labs.
 - Provided problem solving and workload management strategies to students in one-on-one help hours.
 - Collaborated with other teaching assistants to efficiently and consistently grade assignments in-person and remotely using CLI.
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