

# Ethan Lord

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## Education

**University of Illinois at Urbana-Champaign (UIUC) | Bachelor of Science in Computer Science, UIUC GPA: 4.0/4.0**

May 2021

- **Selected Coursework:** Software Design Studio, Data Structures, Computer Architecture, Data Visualization, Systems Programming (Fall 2019), Algorithms (Fall 2019), Computational Photography (Fall 2019), Artificial Intelligence (Fall 2019), Statistics and Probability (Fall 2019)

## Work Experience

**CS 233 (Computer Architecture) | Course Assistant**

Aug. 2019 - Present

- Mentored students regarding circuits and assembly through discussion sections and weekly office hours
- Building infrastructure for running and grading an AI competition in assembly to create an engaging and frustration-free experience for students

**Amazon | SDE Intern**

May - Aug. 2019

- Designed and built a tool to manage thousands of employees in a rapidly-growing internal security program, taking into consideration scaling needs
- Met with team members and key stakeholders several times to determine requirements and how I could support deprecation of old systems
- Utilized several AWS technologies including Lambda/API Gateway, DynamoDB, Cognito, and CloudFormation
- Built an authentication mechanism integrating internal permissions, two-factor authentication, and Cognito for secure API access

**CS 126 (Software Design Studio) | Course Assistant**

Jan. - May 2019

- Ran weekly code reviews with students to improve coding practices and style and held weekly office hours for struggling students

**Leonardo's Basement | Course Assistant**

Jun. - Aug. 2016

- Facilitated introductory robotics courses for students aged 9-13, giving support to build and program LEGO Mindstorms robots to function and compete autonomously

## Project Highlights

**Stock Tracking Application**

Nov. - Dec. 2018

- Developed a customizable desktop app to pull stock data from the IEX API and view it through various graphs
- Leveraged multithreading with C++ threads and OpenMP to support a responsive custom search engine while making a large volume of API calls

**Robotics Path Planning Algorithm**

Jan. - Apr. 2018

- Led a team of four to create a web interface to generate autonomous robot paths for a robot to follow with Motion Profiling and control loops
- Generation allowed for a 50% reduction in time taken to design paths and helped less technically skilled members design paths

**Computer Vision Android App**

Jan. - Apr. 2017

- Built an Android app using OpenCV to detect targets and send target locations over a TCP stream to a robot as the head of a three person team
- Offloading of image processing allowed for accurate tracking of moving targets with closed loop control

## Activities

**SIG Natural Language Learning | Member**

Jan. 2019 - Present

- Developed conceptual knowledge of NLP and machine learning through workshops
- Leading a team working on an article summarization program using PyTorch and NLTK

**FIRST Robotics Competition Team 3042 | Engineering Captain, Software Lead**

Sep. 2014 - May 2018

- Directed meetings and coordinated projects for a 40 person team
- Gave outreach presentations to sponsors, along with technical presentations about computer vision and motion control at conferences

## Skills

**Languages** Java, Python, C++, C, Javascript

**Tools** AWS, Git, D3.js, Pandas, OpenCV, React, PyTorch, LaTeX