

# Hamza Ehsan

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## WORK EXPERIENCE

### WEIDERT GROUP | Full-Stack Engineer

Oct 2020 - Present | Remote, Chicago

- Created a custom CSS3 optimization tool API which reduces app bundle sizes by 20%. Built using Python and flask on average increasing first-load times by 8%.
- Designed and developed a new backend analytics dashboard in React to handle critical forecasting metadata and monitor API interactions and uptime.
- Migrated critical reporting metrics from deprecated service to our platform with no downtime, reclaiming 2TB storage and massively decreasing operational load.
- Worked across the entire stack including API, administrator tools, and database.

### TITLETOWN TECH (MICROSOFT) | Software Engineer Intern

June 2019 - Sep 2019 | Green Bay, WI

- Developed a machine-learning algorithm in python to classify potentially successful start-ups, streamlining potential investment opportunities from 20,000 to 350.
- Owned and operated a CTC Speech Recognition module for a VR language learning software using Python, Tensorflow, and W&B.

### QOLOS | Software Engineer Intern

February 2019 - June 2019 | Green Bay, WI

- Co-engineered a cross-platform car wash subscription service app using Flutter, currently available on Play Store and Apple App Store. Oversaw automated testing using Selenium.
- Led the development of payment features, including PSP integration and PSI compliance.
- Spearheaded fraud-detection script saved \$45k by locking accounts with suspicious activity.

### LAWRENCE UNIVERSITY | Software Engineer Intern

June 2018 - June 2020 | Appleton, WI

- Implemented third-party services and external APIs to student-facing portal reducing code duplicity by 35% using JavaScript, Redux, and Zeplin.
- Conducted a large-scale upgrade of the university's web portal from Drupal-7 to Drupal-8 including custom module development for seamless integration.

## SELECTED PROJECTS

### DroneSeek | Autonomous Facial Recognition Drone

- Created flight software for an autonomous facial recognition drone that relies on computer vision to navigate indoors and center video feed on assigned faces.
- The project was built using a Tello drone, OpenCV, Pandas, pygame, and Flask.

### Texties | SMS note-taking solution

- Engineered a full-stack SMS-based note-taking app using Twilio, Flask, Next.js, Netlify, and Heroku. Integrated a custom-built multi-factor authentication to reduce overhead.

## Education

### Lawrence University

Computer Science & Philosophy

Aug 2016 - Nov 2020 | Appleton, WI

## SKILLS

### Languages

Python • JavaScript • Dart  
SQL • Shell • C# • Java

### Frameworks

React • Git • Flutter • SpringBoot  
AWS(ECS, RDS) • Flask • NodeJS

### Project Management

Agile • Kanban • Presentation  
JIRA • Trello

### Tools

Visual Studio Code • AWS  
Google Cloud Services • Eclipse  
Xcode • Android Studio

## AWARDS

### MakeHarvard- Winner

Harvard University (2019)

### DifferenceMaker - Runner up

U. of Massachusetts (2019)

### The Pitch - Winner

UW - Green Bay (2019)

### LuLaunch - Winner

Lawrence University (2018)

### MadHacks - Runner up

UW - Madison (2018)

## Coursework

### Computer Science

Systems programming • Data  
Structures • Algorithm Analysis  
Theory of Computation •  
Computer Graphics

### Data Science

Machine Learning • Neural  
Networks • Data Visualization  
Data Scientific Programming