

Andrew Zhang

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Educational Background

Northwestern University

Evanston, IL; Expected June 2025

Bachelor of Arts in **Computer Science** | Minor in **Business Institution** | **Segal Design Certificate**

GPA: 3.61/4.00

Relevant Courses: Machine Learning, Microcontroller Design, Data Structures & Algorithms, Mechatronics

Skills

Public Speaking: 4 years of experience in Congressional Debate, Nationally Recognized

Programming Languages: Python, Java, Swift, C, C++

Manufacturing: CAD, CAM, Mill/Lathe, CNC, Auto Repair

Hardware: Embedded Systems, Mechatronics, Raspberry PI, Motion Sensors, Accelerometers

Work Experience

General Motors, Information Technology Intern

June - September 2024

- Used Power BI to create a connected vehicle monitoring dashboard for vehicles worldwide
- Tracked data usage for 500 vehicles, identified data usage anomalies to send to Connected Vehicle Team
- Communicated with Cubic data vendor to optimize data quality
- Utilized Amazon S3 to retrieve vehicle usage data from production database
- Implemented ETL pipeline of 400,000+ rows of vehicle data usage events into PowerBI dashboard

General Motors, Cyber Security Software Development Intern

June - September 2023

- Developed program to analyze plant vendor PCs for compliance with hardware and software standards
- Evaluated potential plant hardware and software for GM and communicated with suppliers
- Created program using AutoHotKey to automate retrieval of security vulnerability reports from plant servers, saving on average 45 minutes per operation

Leadership

CNC Manufacturing Lead, Northwestern Baja SAE

September 2021 - Present

- Designed team-first custom differential housing in CAD, with a focus on Design for Manufacturing (DFM) principles leading to 50% reduction in weight over previous differential
- Oversaw 8 manufacturing projects and training of new members to CNC Mills and CAM software

Personal Projects & Research

Personal Project, iOS App Development

May - August 2020

- Developed an iOS app utilizing OCR (Optical Character Recognition) from VisionKit to transform printed text into editable text on device
- Utilized UIKit to create a seamless user experience and collected user feedback from beta release
- Released onto App Store, received 1000+ downloads in 6 months and 5-Star rating
- [Demonstration](#)

Research, Northwestern Dept. of Civil & Environmental Engineering

June - September 2022

- Conducted large-scale web-scraping of home listings in major metropolitan areas on Zillow
- Conducted text-mining analysis to study impact of natural light on home values
- Utilized Pandas Data Science library to automate organization of 100,000 home listings by zip code

Research, UIC College of Dentistry

March - September 2020

- Conducted research at UIC College of Dentistry to investigate clinical factors (tobacco use, Periodontal's disease, age, etc) influencing presence of oral bacteria
- Analyzed correlation between clinical factors and presence of bacteria using Qiime2
- Presented [research poster](#) at annual symposium to 500+ members of community