

ASHRAF HAMMOUD

EDUCATION

University of Michigan - Dearborn
Bachelor of Science in Software Engineering

Dec 2023
GPA: 3.90/4.00

WORK EXPERIENCE

Ford Motor Company (Contractor)
Software Engineer

Dearborn
Jul 2024 - Present

- Built an internal tool using Angular, Spring Boot, Cloud Run, and BigQuery to support the engineering teams in creating custom repositories.
- Designed and implemented new UI screens using Angular and TypeScript for an internal application, and developed supporting Java Spring Boot APIs deployed to Cloud Run.
- Integrated SFTP functionality to workflows in Cloud Workflow and for the automatization of secure data egress.
- Supported data pipelines using Dataflow and Dataproc to process, transform, and load data into BigQuery

Pluck
Full Stack Software Engineer

Remote
Nov 2023 - Jul 2024

- Oversaw a complete overhaul of Pluck's Goodpluck site, focusing on UI enhancements and integrating AstroJS, Typescript, Swell, and Vercel. This resulted in a 40% increase in user engagement and a 25% increase in site performance metrics.

University of Michigan - Dearborn
Website Designer

Dearborn, MI
Oct 2023 - Apr 2024

- Designed the Engage Detroit Workshop Series, providing invaluable support to Detroit families navigating school choices and college admissions; boosted community engagement by organizing and facilitating 10 impactful workshops, leading to a 50% increase in community participation and awareness.
- Designed and developed a dynamic website using Webflow and WordPress, integrating custom HTML, CSS, and JavaScript to improve user experience and accessibility.

Pluck
Software Engineering Intern

Detroit, MI
May 2023 - Aug 2023

- Designed and implemented a weekly product recommendation engine using Python and PostgreSQL, resulting in a 15% sales increase through improved user personalization. Employed product-to-product content-based filtering, along with automated performance assessments.
- Designed and implemented a customer feedback form and a custom Shopify app for automated order processing, resulting in improved customer satisfaction and operational efficiency.

SKILLS

Languages	C++, C, Java , Python , JavaScript, TypeScript, SQL
Frameworks & Platforms	Spring Boot , React, PostgreSQL
Tools	Visual Studio, IntelliJ, Git, Material UI, HTML, CSS, jQuery
Additional Skills	Debugging, Testing, OOP , Agile , RESTful API
Cloud	Dataproc, Dataflow , Cloud Run , BigQuery

PROJECTS

Real-Time Fuel Efficiency Tracking (Mobile) - *Java, Spring Boot, Firebase, GCP*

Jan 2023

- Designed and implemented RESTful APIs using Spring Boot and integrated Firebase's Realtime Database for real-time data storage and retrieval from vehicles via OBD-II adapters.
- Hosted the APIs on Google Cloud Platform's Cloud Run by containerizing the Spring Boot application with Docker.

- Developed the Android front end using traditional XML layouts and View Binding, creating simple user interfaces. Integrated Firebase Realtime Database to display real-time vehicle data.

YT Stamps (Chrome Extension) - *Python, Flask, Pytest, JavaScript*

Mar 2024

- Created a Python Flask API server with routes to fetch YouTube video transcripts and comments, utilizing a transformer model to convert comments into mathematical vectors.
- Implemented cosine similarity to match comments with relevant video transcript sections, identifying precise timestamps with high accuracy (where -1 indicates opposite, 0 unrelated and 1 highly similar).
- Integrated the API with the Chrome extension to dynamically display timestamped comments on the YouTube page, enhancing user experience by enabling direct navigation to specific video segments.

Mark's Voting App (Web) - *React, TypeScript, Firebase, Express.js*

Dec 2023

- Collaborated with a team of four to develop the application using an Express.js backend with API routes, React for the frontend, and Firebase for Firestore database and authentication.
- Implemented the admin dashboard and live voting feature, utilizing WebSockets for real-time data processing and updates.
- Hosted both the backend and frontend on Firebase, using TypeScript for enhanced developer experience and code reliability, ensuring robust security features for large-scale voting events at conferences with up to 1,000 attendees.

Big Board League (Web) - *Next.js, TypeScript, Sanity, CSS*

Oct 2023

- Using TypeScript to create Sanity schemas and utility functions, using groq (Sanity's open-source query language) for efficient querying of the Sanity CMS.
- Pages built for players, seasons, and games using Next.js, enabling the frontend to retrieve necessary data via custom Sanity utility functions.
- Implemented an intuitive admin portal using Sanity's NextStudio, allowing easy access by appending '/admin' to the URL and signing in, providing a seamless user experience for site administrators.

Job Processor Simulator (CLI, Web) - *C++, Javascript, HTML, CSS*

Apr 2022

- Pair-programmed to create a job processor using a custom priority queue in C++, applying OOP principles with classes for the Processor and PriorityQueue.
- Recreated the processor as a website using JavaScript, HTML, and CSS to better showcase the efficient allocation of processors for assigned jobs.
- Enhanced the web application to visually demonstrate the performance and efficiency of the job processing system, making it more accessible and user-friendly.

AWARDS

William J. Branstrom Prize

Apr 2021

1st-term freshmen who rank in the upper 5% of their class.

James B. Angell Scholar

Apr 2020

Students who achieve an "A" record for 2 or more consecutive terms.

REFERENCES

Chening Duker

Lead Developer, Pluck

Email: chening@pluck.eco

Mobile: [REDACTED]

Mark Elias

Distinguished Network Architect, Trinity Cyber

Email: mark.elias@trinitycyber.com

Mobile: [REDACTED]