MAISSOUN KSARA

maissounksara@gmail.com • +1 (484) 557 0689 • github.com/mai-codes • maissoun.com

SUMMARY

I am a structural and process mechanical engineer turned software developer with a passion for programming innovative solutions to everyday problems. My love for technology, design and creation urged me to switch paths and focus on growing my career as a programmer. My unique background in structural & process engineering along with my technical acumen, strong critical thinking and communication skills allow me to bring a uniquely well-rounded perspective to the table. As a trilingual engineer with a diverse technical skillset, I thrive in collaborative environments among multidisciplinary teams. I am currently looking for software development opportunities where I can continue to enhance and strengthen my development skills.

EDUCATION

Drexel University, Pennsylvania   Graduated 2018

Bachelor of Science in Civil Engineering & Master of Science in Structural Engineering   GPA: 3.80/4.00

Relevant Coursework: Data Structures & Algorithms (online courses), Linear Algebra, Dynamics,Engineering Data Analysis, Advanced Structural Analysis, Mechanics of Materials

PROJECTS

Augmented Speech-reader and Bluetooth module – Winner evoHax Hackathon

- A portable voice recognition device augmented with Bluetooth that converts speech to text to desktop and web commands
- Written in C++ and Python to interface with the free, open source, text to speech reader Non-visual Desktop Access (NVDA) to enable two way, hands free, audio communication between the user and various functions on their computer from opening an application to selectively reading a web page
- The automation of searching commands like control + F to find relevant content eliminates any need for manual keyboard and mouse input

SWEShare – 2ⁿᵈ Place UPenn FemmeHacks Hackathon

- An application aimed to help Drexel's Society of Women Engineers organize its schedule and tasks. Written in Python using Django Framework. Includes scripts in JavaScript & marked up in HTML/CSS.
- The application enabled SWE members to post their goals and get matched with other members or mentors with similar goals in order to help them reach it through collaboration.

Personal Website Portfolio

- Developed a personal web portfolio to showcase my projects, experience, and skills
- Written in Javascript and ReactJS using GatsbyJS starter website package. Marked up in HTML/CSS

HP21 Calculator Clone – (in progress)

- Collaborating with a senior programmer to develop a clone of the HP21 calculator
- WPF app (.NET framework) using in XAML and C#

EXPERIENCE

SNC-Lavalin – Process Mechanical Engineer   Oct 2019 – Current

- Preparing and reviewing design documents and plant modifications in accordance with approved procedures, processes and design requirements for Industrial Manufacturing Facilities
- Completely redesigned Royal Canin Lebanon, TN pet food manufacturing facility in 3 months while remaining under-budget and tight project schedule
- Utilizing BIM technology to model equipment in 3D, coordinate between disciplines through clash detections, and generate equipment/building layouts

SNC-Lavalin – Structural Engineer   Sept 2018 – Oct 2019

- Performing structural analysis design of steel, reinforced concrete, and masonry structures for large multi-story industrial/ manufacturing facilities in the agro, pharma, and chemical industries
- Designing structures including building structure, platforms, pipe racks/bridges, foundations
- Mentored new-hires and interns on best practices, software training, and company standards
- Utilized BIM software including Autodesk Revit, Navisworks, ReCap, and markups using Bluebeam

ACHIEVEMENTS

- Tier 2 Scholarship Awardee to ASCE Structures Congress 2020
- 1 in 2 Regional Society of Women Engineers Future Leader
- Published Technical Research Paper on Elsevier as First Author

SKILLS

Languages: C, Python, Javascript, ReactJS, SQL, HTML5, CSS3, MATLAB

Technologies: Unix, Git, Django