

Barry Brookins, EIT

Chicago, Illinois 60616 • (773) 630-8877

brookinsbarry@gmail.com

<https://github.com/bbbroo>

Driven and hard-working Mechanical Engineer with 2 years of natural gas pipeline experience, working towards a Masters in Computer Science, excited to transition into the role of a full-time software engineer. Looking to leverage my problem-solving, communication/collaboration, creativity, and analytical skills to make an impact as an engineer by designing, developing, and maintaining high-quality solutions to address the unique needs of clients and stakeholders. I possess a high level of proficiency in Javascript, CSS, HTML, and Python, as well as a deep understanding of frameworks such as React, Bootstrap, and Express, which allows me to effectively design and develop a wide range of software and products.

Education

Illinois Institute of Technology

Chicago, Illinois

Computer Science, Masters

Graduation Date: May 2025

Mechanical Engineering, Bachelor of Science - GPA 3.40

Graduation Date: May 2021

- Dean's List: Fall 2017, Spring 2018, Spring 2021

Certifications

- Engineer in Training, #061.041549, Illinois, October 2021

Experience

HDR Engineering

Rosemont, Illinois

Mechanical Engineer

May 2021 - Present

- Served as the Engineer/Designer on Natural gas pipeline projects for various clients(Nicor, DTE, Black Hills Energy, Duke Energy). Services provided include:
 - Coordinating with fellow engineers and external stakeholders to perform engineering and design of 50+ projects, many of which were constrained by tight compliance deadlines and possessed a diverse range of sizes and complexities.

Projects

List of projects developed and optimized:

- A project that provided algorithmic options trading signals based on live option order flow. Functionality includes analyzing types, dates, and premiums of real-time option orders and output notable orders. Orders were retrieved using Requests and intramarket orders, alerts were made using webhooks within the Discord API, SMTP email server, and the TD Ameritrade API. A backtesting strategy was also implemented to test and optimize the project's algorithm.
- Software to fully automate the process of ordering out items on Shopify stores using PhantomJS, BeautifulSoup 4, Selenium, and Requests. Included Tkinter to implement a fully functional GUI for the project.
- A program that searches through Zillow listings to display for sale properties that are priced a notable amount under Zillow's "Zestimate". Utilizes OpenPyxl, BeautifulSoup, and Selenium to scrape Zillow's website and to augment the scraped data.