

James J. Cao

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OBJECTIVE

- Career in software engineering, web development, data analytics artificial intelligence/machine learning (AI/ML)
- Interests in programming, software engineering, business decision-making automation

EDUCATION

Worcester Polytechnic Institute (WPI), Worcester, MA, 05/2024

Bachelor of Science in Computer Science, GPA 3.8/4.0, Presidential Scholarship, Dean's List

SKILLS

- Computer Science: object-oriented programming/design, web development (Node.js, React), software engineering (using React, Amazon Web Services-AWS, Google, Azure), algorithms and AI, database admin (RDBMS), big data management (Hadoop, Pig, Spark), containerization (Docker), systems thinking, mobile app development (Android Studio, Xcode), Linux shell, various operating systems
- Coding: Java, Python, C/C++, SQL, HTML, CSS, JavaScript, Swift, Kotlin, MATLAB, R, RobotC, Assembly

PROJECTS

Personal Projects | Website URL: jamescao.dev | 10/2024 – date

- Built multiple mobile iOS apps, practicing mobile app dev skills by completing “100 Days of SwiftUI”
- Created a personal portfolio website as a hub with links to my past and present projects
- Enhancing web dev skills via completing “The Odin Project” with tools including basics (HTML, CSS, JS), Git management, Node.js + npm, and API data retrieval

Major Qualifying Project (MQP) | Worcester, MA | 08/2023 – 03/2024

- Designed and created (in a group of 3) an augmented reality (AR) game in Unity, using functional near-infrared spectroscopy (fNIRS) to detect player's focus state and recommend relevant choices
- Completed research on whether choices dependent on focus state have enhanced the user's experience (UX)

Interactive Qualifying Project (IQP) | Turn Back Time Farm, Paxton, MA | 03/2023 – 05/2023

- Designed and created (in a group of 3) an interactive info-sharing system to benefit local nature-based pre-school program
- Delivered a QR code system so users can see 7 learning stations info via Google pages real-time

Crowdfunding Platform | Worcester, MA | 11/2022 – 12/2022

- Created (in a group of 4) a proof-of-concept crowdfunding platform to allow members to fund the projects initiated by designers
- Tools used: React (frontend design), AWS (backend lambda functions), and MySQL (user info storage)

EXPERIENCE

Software Intern | Ailares | Princeton, NJ | 05/2023 – 07/2023

Ailares is a FinTech start-up focused on ML/AI algorithm trading systems (equity, crypto currency)

- Developed data flows (ETL: extract, transform, load) for commercial loans and customers using CSI NuPoint, Microsoft SQL Server Management Studio (SSMS), SQL Server Integration Services (SSIS)
- Created Power BI dashboards (data visualization) organized by 7 commercial loan portfolios

Software Intern | Ailares | Princeton, NJ | 05/2022 – 08/2022

- Designed an extensive finance reporting dashboard with Microsoft Power BI and DAX functions (graphs, charts, data models), supported real-time algorithm-based stock trading
- Developed new product (web application) using WordPress with a membership system and one-time purchases for online content, to analyze financial market show hosts and their stock predictions

Software Intern | NPG Solutions | New Albany, OH | 06/2021 – 08/2021

NPG is an IT service provider on Cloud, Collocation, Network Security, and Invoice Management

- Researched invoice software vendors, improved processing workflows with Optical Character Recognition (OCR)
- Automated invoice workflow on AWS (Amazon Web Service) from data received via email to data tables in Amazon DynamoDB NoSQL (Not-Only-SQL) database