

Harlan Jazz Ferguson

FULLSTACK SOFTWARE ENGINEER

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Skills

- **Programming Languages:** Python, Java, C#, C, PHP.
- **Web Development:** HTML, CSS, JavaScript, TypeScript, Node.js.
- **Frameworks:** Spring Boot, React.js, Express.js, Django, .NET Core, React Native, Swing.
- **Database Management:** MongoDB, Oracle SQL Developer, Postgres, MySQL, SQLite3.
- **DevOps:** Docker, Postman, Jenkins, Linux environments, CLI commands and scripting, SSH, WSL, Azure, Google Cloud.
- **Other:** Software design, Scrum Fundamentals Certified 2023, Git/GitHub, Microsoft Office, Raspberry Pi / Arduino.

Projects

- **Phishing Email Detection using AI:** Created a chrome browser extension that reads emails, detects suspicious emails with 90% accuracy using a random forest classifier, and if flagged as phishing, generates a warning in the email and disables all external links. **Techstack:** Python (Flask/Sci-kit), JavaScript.
- **Reddit Title Predictor:** Generated a dataset from scratch using Reddit's API and then trained a Bayes model to achieve an 80% F1 score. Built a React frontend for user input. **Techstack:** Python (Django/Sci-kit/Pandas), Typescript, React.js.
- **Peer-to-Peer Bidding Website:** Programmed alongside teammates to produce a functional web application that allows for user signup/sign in, 2FA, admin user accounts, item creation, and a bidding mechanism. We deployed our solution to Azure. **Techstack:** C#, .NET, Azure.
- **Employee Management Webapp:** Developed a website for managers to CRUD employees and reactively track different employee statistics at an easy glance. **Techstack:** MERN (Mongo, Express.js, React.js, Node.js).
- **Real-World Scavenger Hunt Android App:** Spearheaded the design and development of an app using Google Maps API, guiding team members in collecting and integrating real-world locations. Successfully implemented tracking features, leading to a 100% grade for the final project. **Techstack:** Java.
- **Portfolio of all my projects can be found on my website.**

Achievements

- Top 18% in IEEEExtreme 2023 international programming competition with over 20,000 participants.
- Top 27% in IEEEExtreme 2022 international programming competition with over 14,500 participants.
- Competed in Bell GeekFest 2023 / 2022 and ActInSpace International Hackathon 2022.

Education

George Brown College, Advanced Diploma: Computer Programming and Analysis 2021-2024

- GPA: 3.48 | Dean's Honour Roll.
- Co-founder and VP of GBC Computer Science Club.
- A- in Data Structures and Algorithms.

George Brown College, Advanced Diploma: Business Administration – Retail 2017-2020

- GPA: 3.32 | Dean's Honour Roll.

Work Experience

George Brown College | Student Researcher 2024 – Present

- Selected by faculty to develop software for the college.

Arcadia Housing Coop | Maintenance Worker and IT Consultant 2021 - Present

Urbane Cyclist | Mechanic 2012 - 2021