TOUFIQ CHARANIA

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EDUCATION

Sheridan College
Advanced Diploma, Software Development and Network Engineering - GPA: 3.60 / 4.0

Brock University
St. Catharines, ON
Bachelor of Arts, Political Science
Sep 2012 - Apr 2017

EXPERIENCE

Evertz Microsystems Mississauga, ON

Software Design Engineer Intern (Co-Op) - Design Verification Group

Sep 2024 - Dec 2024

- Independently developed and deployed a Python-based server health monitoring script using internal APIs
 (AHTTP and ASNMP) to ensure the reliability of live stream servers
- Reduced manual verification time by streamlining the process of checking server parameters, such as signal presence and output, across 32 live stream server cards, saving hours of manual review
- Created a Python script that automated the export of development logs from an internal portal, transforming data into an HR-compliant Excel template, minimizing manual data entry
- Conducted hardware diagnostics and repairs, utilizing serial connections (SSH) for firmware updates and physical card repairs, including fan replacements
- Conducted BIOS/driver updates, server maintenance, and cable management to ensure smooth server operations
- Tech Stack: Python, Git, Bitbucket, Flask

Skill Squirrel Mississauga, ON

Junior Software Developer (Co-Op) - App Development Team

Jan 2023 - Apr 2023

- Resolved frontend issues assigned on Jira, primarily focusing on layout and styling problems using React, HTML, and CSS
- Contributed to backend fixes, such as resolving issues with the search box functionality, ensuring seamless user interaction
- Conducted thorough code reviews and testing before pushing changes to the branch via Git
- Collaborated with senior developers to seek guidance and review completed tasks
- Tech Stack: React.js, JavaScript, HTML, CSS, Git, Jira

PROJECTS

brawlr | Python, OpenCV, Tensorflow, PyTorch, WebRTC, React, Machine Learning, Git

- Developing an Al-powered boxing judge application to analyze significant strikes in real-time using computer vision and machine learning
- Implementing pose estimation and motion tracking with Python, OpenCV, Tensorflow, PyTorch, and WebRTC to identify punch types and assess their impact
- Designing a real-time scoring algorithm to evaluate strikes based on intensity, accuracy, and technique
- Building a React-based frontend to provide a user-friendly interface for visualizing strike data and match statistics
- Collaborating with a team to optimize performance and improve the model through iterative testing

Split-It | Java, JavaFX, File I/O, Password Hashing, Scene Builder, Git

- Developed a Java-based expense tracking application to efficiently manage and track expenses for multiple
 users
- Enabled registration/login, expense list creation, user assignment, and individual total calculations
- Built the GUI with JavaFX and Scene Builder across multiple screens
- Secured user login credentials with hashing methods. Ensured a maintainable codebase with the Model-View-Controller architectural pattern.

TECHNICAL SKILLS

Programming Languages: Java/J2EE, Python, C, C#, .NET, Swift, Kotlin JavaScript, TypeScript,

HTML, CSS

Frameworks & Libraries: Spring Boot, REST API, JUnit, React, Angular, Node.js, Material-UI,

PyTorch, OpenCV, Tensorflow, WebRTC

Database Management: SQL (MySQL, PL/SQL), MongoDB

Software and Tools: Git, Bitbucket, Jira, IntelliJ, CLion, Eclipse, Visual Studio, VS Code, Azure Data Studio, X-

Code, Android Studio, Docker, Jenkins

Cloud Computing: Amazon Web Services