

# DAIZZAH BOTOY

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## SOFTWARE ENGINEER

### PROFESSIONAL SUMMARY

Computer Engineering graduate with nearly two years of experience building full-stack applications, embedded systems, and responsive web interfaces. Passionate about clean, user-centered design and developing real-world solutions through code.

### TECHNICAL SKILLS

- **Programming Languages:** Python, Java, C, C++, JavaScript, HTML/CSS, Kotlin
- **Frameworks & Libraries:** Django, PyQt5, Tkinter, Bootstrap
- **Tools & Platforms:** Git, GitHub, GitLab, Linux, VS Code, Docker, MQTT
- **Concepts:** Version Control, Embedded Systems, Frontend Development, UI Design

### EXPERIENCE & PROJECTS

#### Student Software Developer

May 2022 - Aug 2023

Calian Advanced Technologies · Saskatoon, SK

- Worked with a team of **7+ developers** to maintain and enhance a **GUI system** for **satellite communication**
- Followed **Agile Scrum** methodology with daily standups, **2-week sprints**, and regular **retrospectives**
- Developed and tested software in **Python, Java, C++, Kotlin**, and **TCL**
- Wrote **unit and system tests** to ensure code **reliability** and **coverage**
- Used **Git version control** to track code changes and manage **project branches**

#### Capstone Project – SecureMed Web Platform

Sept 2023 - Mar 2024

University of Saskatchewan · Saskatoon, SK

- Built a secure medical records platform in a 4-person team using **Python** and **Django**, with **encryption** and **decryption** features
- Built responsive web interfaces (HTML, CSS, JS) designed for ease-of-use by medical professionals
- Managed client communication, deliverables, and timelines to ensure successful project delivery

#### Smart Parking System (UI Simulation)

February 2023

Course Project

- Built a PyQt5 desktop application simulating real-time parking availability, integrating bidirectional messaging with a **Raspberry Pi** via **MQTT**
- Emulated sensor behavior to trigger UI updates for slot occupancy, warning lights, and a dynamic display board
- Developed a widget-based UI to simulate real-time parking management, providing a realistic and user-friendly experience for managing smart parking lots

#### Valorant Agent Roulette

November 2024

Front-End Personal Project

- Built a browser-based tool using HTML, CSS, and JavaScript to randomly assign agents for Valorant duos
- Designed a responsive UI with sound effects, **animations**, and **mobile-friendly layout**
- Customized visual styling to match the app's playful theme

## EDUCATION

**Bachelor of Science in Engineering – Computer Engineering**      Sept 2019 – Nov 2024  
**University of Saskatchewan · Saskatoon, SK**

- Graduated with **Great Distinction**
- Awarded **Dean's Honour Roll** (1st to 3rd year)
- Member of **Golden Key Honour Society**, top 15% of program
- Completed capstone project with **real-world client** and **security standards**

## RELEVANT COURSEWORK

- **CMPT 353 – Full Stack Web Programming**
  - Designed modern web apps using **HTML**, **CSS**, **JavaScript**, and **Node.js**. Emphasized scalable design, **UI/UX**, and database integration with **MongoDB**
- **CMPT 470 – Advanced Software Engineering**
  - Covered software **design patterns**, architectural styles, **testing strategies**, and teamwork in complex systems. Applied **agile methodologies** and **version control** practices
- **CME 466 – Advanced Digital System Design**
  - Built an end-to-end IoT system using **Raspberry Pi**, **MQTT protocols**, and **Python**. Integrated edge devices, cloud communication, and **ML automation** into a smart city simulation
- **CME 334 – Network Architecture and Protocols**
  - Studied network infrastructure, transmission technologies, **TCP/IP**, **security protocols**, and **IoT networking**. Applied **hands-on** lab work in packet analysis and Python-based **socket programming**
- **CME 331 – Embedded Systems**
  - Designed and programmed microcontroller-based systems. Worked with **ARM Cortex-M**, real-time interfacing, **I/O control**, and **memory-mapped registers** in C
- **CME 341 – Logic Design with FPGAs**
  - Built digital circuits and controllers on FPGA boards using **Verilog**. Simulated and tested **combinational and sequential logic** with real hardware
- **CME 433 – Digital Systems Architecture**
  - Explored CPU architecture, **instruction sets**, **pipelining**, and hardware/software interfaces. Built and simulated processor modules and **memory systems**

## ADDITIONAL

- Confident using Linux and Windows terminals (**Bash**, **CMD**, **PowerShell**)
- Familiar with automation tools including **batch scripting**, **Python scripts**, Task Scheduler, and **Makefiles**
- Strong interest in **UI/UX** and clean, accessible frontend design
- Enjoy solving algorithm problems and frequently deep-dive into LeetCode
- Taught coding fundamentals to younger siblings by adapting explanations to different learning styles

## REFERENCES

Available upon request