



**COMPUTER SCIENCE / COMPUTER ENGINEERING**

Ashkan Zahabiouon

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## **EDUCATION**

## **M. Eng in Computer Science (Masters)**

*North Carolina State University, Charlotte, NC*

## **Bachelor of Science in Computer Science**

## **Minor: Computer Engineering**

GPA: 3.84 / 4.0

*University of North Carolina at Charlotte, Charlotte, NC*

## SKILLS

- Languages & Tools: Java, C++, Python, TypeScript, JavaScript, PHP, Lua, C, C# (.NET)
  - Embedded Systems: UART, ADC, GPIO, PWM, MSP430, Serial Communication, Circuit Debugging
  - Frameworks: React, Node.js, .NET, REST API Development
  - Software: Microsoft Word, Excel, PowerPoint (proficient)
  - Languages: English and Farsi (bilingual proficiency)

## EXPERIENCE

**Software Engineer, Mountain Interactive LLC, Los Angeles, California**

October 2020 - May 2025

- Built and shipped interactive, large-scale frameworks in a cross-functional team environment.
  - Implemented gameplay/system features and improved reliability and performance across client/server components, written in LUA.
  - Contributed to a high-traffic experience reaching 2M+ visits and a community of 310K+ members.

## **Full - Stack Developer, *SaulTech***

January - May 2024

- Worked on a startup project developing C# applications using the .NET framework.
  - Contributed to both front-end and back-end development, focusing on performance optimization and code scalability.
  - The startup was dissolved, but the experience strengthened skills in full-stack development and project management.

**Intern**, Mountain Interactive LLC, Texas, Austin

June - 2022

- Scripted and tested interactive prototype features for a demo project.
  - Supported deployment and infrastructure tasks; gained hands-on exposure to DevOps workflows and networking basics.
  - Strengthened production development skills in TypeScript/JavaScript, PHP, and Luau.

**Cashier, Harris Teeter, Charlotte, NC**

May - December - 2022

- Delivered customer service in a high-volume environment while balancing accuracy, speed, and communication.



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### **INDEPENDENT STUDY**

Medical Devices & Computer Engineering - North Carolina State University  
Supervisor: Dr. Zhishan Guo

- Conducting an independent study focused on medical-device-oriented engineering problems spanning embedded systems and computer engineering.
- Applying systems thinking across hardware/software integration, experimentation, and technical documentation.
- Producing milestones as literature notes, prototypes, and/or a final technical report (as required by the study).

### **PUBLICATIONS / PAPERS**

Zahabiuon, A., Ojo, E. Adaptive Power Management in O-RAN Systems Using KPM-Driven xApp Control. Technical Report, Department of Electrical and Computer Engineering, North Carolina State University. (<https://ashz.org/publications>)

- Built a KPM-driven power-control xApp for the Near-RT RIC (FlexRIC) that dynamically adjusts resource allocation using threshold + hysteresis logic.
- Demonstrated ~18.3% energy savings during idle conditions while maintaining comparable performance under load in a simulated evaluation setup.

### **PROJECTS**

#### **MSP430 Embedded Labs (UART & ADC Systems), UNCC**

*Summer 2024*

- Implemented UART serial communication and ADC reading to send live analog sensor data.
- Built an interactive firing controller transmitting 8-bit sensor values over serial.
- Created a tripwire alarm using ultrasonic sensors, PWM, and GPIO-based state control.
- Designed a Cyclone LED game and button-based LED control with debounce logic.

#### **Programmed, MountWare**

*January - May 2024*

- Developed backend infrastructure for MountWareTeam, focusing on scalable server-side JavaScript architecture.
- Optimized API calls and database interactions, ensuring efficient data handling.

#### **Programmed, iPhone Project**

*August 2024 - Present*

- Developed a virtual iPhone, using Luau for scripting and game mechanics.
- Created a detailed user interface and seamless interaction system.

#### **Programmed, SimpleAdmin**

*April 2023*

- Created a bot and dashboard system for managing server operations and user engagement.
- Uses longpolling and various communication measures with ORAN to keep communication.

#### **Manager, Innovation Project, UNC Charlotte**

*October 2022*

- Managed group of 4, and delegating their task, along with keeping project timeline.
- Cargo Design was very minimal, creation of an axel system allowing the car to move without any friction.

#### **Manager, Beam Creation, UNC Charlotte, ENGR**

*November 2022*



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- Virtual Creation of I – Beam, H – Beam, and Hollow – Box Beam on Online Modeling Program.
- Calculated the dimensions, and safety factors for it to pass the pressure tests.

**Programmed, *Scuffl Card Game***

*November 2021*

- Developed a card game using Unreal Engine 4, focusing on gameplay through blueprints.
- Integrated various gameplay mechanics and AI-driven opponents.

### **AWARDS/HONORS**

- Minor in Computer Engineering (Spring 2025)
- Dean's & Chancellor's List for multiple semesters
- 8+ years of experience in piano performance, including local recitals and community events