

# CHARLES JOSEPH REYES GATCHALIAN

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## Education

### University of Houston

Bachelor of Science in Computer Science | GPA: 3.5

August 2023 – May 2027

Houston, TX

## Skills

**Languages:** Python, C++, SQL

**Tools:** Git, Docker, Linux, Azure DevOps, CI/CD pipelines

**Certifications:** CompTIA Security+, Google IT Support

**Relevant Coursework:** Operating Systems, Data Structures & Algorithms, Cisco Network Engineering I

## Experience

### Software Engineering Co-Op

January 2026 – Present

NASA (via LZ Technology, Inc.)

Houston, TX

- Develop C++ module to deploy Samba as a lightweight Linux domain controller for 50+ on-flight systems, reducing RAM and storage usage by over 70%
- Automate 100+ Linux system roles and permissions across VMs through custom C++ code, ensuring secure authentication and compliance for flight systems
- Collaborate in Agile-style weekly team meetings to plan, review, and coordinate software deployment tasks for mission-critical systems

### Undergraduate Researcher

January 2026 – Present

University of Houston (Faculty-Mentored Research)

Houston, TX

- Contributing to faculty-mentored research using Qwen-Agent and LLM-based AI agent workflows for educational applications, focusing on memory, planning, and function-calling capabilities.
- Assisting in the design and implementation of AI agent tasks for automated evaluation of student coding performance, leveraging error detection and contextual reasoning for code quality feedback.
- Investigating multi-step reasoning and instruction-following mechanisms to improve reliability of agent responses and reduce hallucinations.

### Software Engineering Intern

May 2025 – August 2025

Limbaga Law

Houston, TX

- Rebuilt client website in TypeScript with streamlined navigation, lowering support requests by 30%
- Secured contact form with input validation and honeypot filtering, successfully blocking 99% of spam submissions
- Automated client email notifications with Python, saving the team 5 hours per week on manual follow-ups

## Projects

### CI/CD Pipeline

- Built a functional CI/CD pipeline using Azure DevOps to automate the build and deployment process for a sample application
- Integrated SAST and dependency scanning, identifying critical vulnerabilities before deployment
- Configured workflow with audit logs and rollback triggers, streamlining releases and ensuring compliance with security best practices

### Campus Crowd Reporting

- Collaborated on a React Native mobile web app tracking crowds for 20+ study halls, improving real-time campus monitoring
- Designed RESTful APIs tested to handle 50 requests/min, ensuring reliable and consistent crowd updates for users
- Containerized backend services with Docker/Docker Compose, reducing developer onboarding time by 2 hours through standardized setup and documentation

## Extracurriculars

### CougarCS - Information Security Branch

August 2023 – May 2025

Workshop Officer

University of Houston

- Led workshops on Wireshark and packet analysis, educating 30+ peers on core network fundamentals
- Coordinated weekly CTF sessions, leading a team of 5 to achieve a top 18% national ranking for PicoCTF through strategic meetings