

# Salim Mohamed

503-519-8153 | [smohamed9927@gmail.com](mailto:smohamed9927@gmail.com) | <https://www.linkedin.com/in/salimamohamed> | <https://salimmohamed.dev/>

## EDUCATION

### Oregon State University

*Bachelor of Science in Computer Science, Focus in Machine Learning & AI*

Corvallis, OR

Sep 2022 – Present

## EXPERIENCE

### Community Outreach High School Intern

June 2018 – Sept 2018

*Portland Parks & Recreation*

*Portland, OR*

- Developed Python automation scripts for volunteer attendance tracking using CSV file processing, Excel/Google Sheets integration, and data transformation to generate summary reports and reduce manual data entry for 150+ volunteers
- Implemented data analysis pipeline with Pandas for computing participation statistics across 50+ events, created data visualizations using Matplotlib for stakeholder presentations and program evaluation
- Built lightweight Python automation tools integrating Google Sheets APIs with basic error handling, data validation, and workflow optimization to streamline volunteer management processes

## PROJECTS

### Real-Time Memory Analysis Engine | C++, DirectX, Win32 API

April 2025 – Present

- Architected C++ low-level system application using DirectX 11/12 overlay rendering, Win32 API hooks, and kernel-mode memory access for real-time process monitoring, player data extraction, and anti-cheat bypass with JSON configuration management and thread-safe operations
- Implemented modular ESP (Extra Sensory Perception) system with configurable player visualization, 3D coordinate transformations, distance calculations, and real-time memory reading using DMA (Direct Memory Access) techniques and hardware, pointer arithmetic, and memory pattern scanning
- Designed object-oriented configuration system with JSON serialization/deserialization, tabbed GUI interface using Windows Forms, automated settings persistence, and modular plugin architecture for enhanced extensibility and maintainability

### Full-Stack Financial Trading Platform | React, TypeScript, Flask, Finnhub API, Vercel

July 2025 – Present

- Architected full-stack fintech application with React 18/TypeScript frontend, Flask REST API backend, and Finnhub financial data API integration for real-time stock quotes, company profiles, and market data with async/await patterns and error handling
- Implemented automated alert system with price threshold monitoring, portfolio tracking, and market leader analysis using JSON file storage, CORS-enabled API endpoints, WebSocket connections, and event-driven architecture
- Built responsive SPA dashboard with JWT authentication, alert management, and portfolio visualization using React hooks, TypeScript interfaces, Supabase database integration, and Vercel serverless deployment with CI/CD

### World of Warcraft Analysis System | Python, CSV Processing, Data Analytics

May 2025 – Present

- Engineered Python ETL pipeline using object-oriented design with abstract base classes, inheritance, and polymorphism to process 10,000+ unstructured game log lines into structured CSV reports with datetime parsing, regex pattern matching, and data validation
- Implemented boss-specific analysis modules with player death tracking, attempt duration calculation, and non-player mistake identification using defaultdict data structures, collections framework, and statistical analysis algorithms
- Built comprehensive statistics engine with player performance analysis, attempt formatting, and automated report generation with CSV output, data integrity verification, and performance optimization using list comprehensions and generator expressions

## TECHNICAL SKILLS

**Programming Languages:** C, C++, Python, Java, Go, C#, JavaScript, TypeScript, SQL (Postgres), R, HTML, CSS, Bash/PowerShell scripting

**Data & Graph:** SQL/NoSQL Databases, PostgreSQL (ACID transactions), Supabase (Postgres), MongoDB, SQLite, Graph Databases (Neo4j, TigerGraph), Kafka, Redis, Elasticsearch, Pandas/NumPy, CSV/JSON processing

**Developer Tools:** Git, GitHub, GitLab, Docker, Kubernetes, AWS (EC2, S3, RDS, EKS), Google Cloud Platform (GKE, Pub/Sub), Vercel, GitHub Actions, GitLab CI, React, Next.js, Tailwind CSS, Flask, FastAPI, CMake, DirectX 11/12, Win32 API, Linux