

Ahmad Naqshbandi

SOFTWARE ENGINEER

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Education

Ferris State University

B.S. IN APPLIED MATHEMATICS COMPUTER SCIENCE | SENIOR | EXP GRADUATION: MAY 2025

- **GPA:** 3.72 | **Founders Scholar** | **Certifications:** [Machine Learning](#) (Novice)
- **INMO** (Indian National Mathematical Olympiad) Qualifier

Big Rapids, Michigan

Aug. 2021 - May. 2025

Major Project: OnAir - Real-Time Location-Based Social Messaging

Big Rapids, Michigan

RUBY ON RAILS, WEBSOCKETS, PUB/SUB, AWS (EC2), MVC, COFFEESCRIPT, BCrypt, SASS, AUTHENTICATION, AUTHORIZATION

- Designed and developed a real-time chat application where all users can interact within a specific location, blocking outsiders.
- Built a WebSockets based Pub/Sub system to create dynamic, location-bound chat channels, ensuring real-time interactions.
- Implemented industry standard authentication and authorization systems using Controller filters, tokens, and BCrypt for encryption.
- Deployed the application on AWS EC2, optimizing performance and scalability.

Work Experience

ORA, Inc.

Big Rapids, Michigan

SOFTWARE ENGINEER, INTERN | STACK: RUBY ON RAILS, SLIM, ERB, HTML, SASS, CSS, GIT, RESTFUL APIs, AGILE

May. 2023 - Jun. 2024

MAJOR PROJECT (I): DEVELOPED THE SYNOPTIC WORKSHEET FOR CDC

- Center for Disease Control and Prevention (CDC) project.
- Project set for deployment across 5 states and 200+ counties.
- Developed software that standardizes autopsy procedures to make autopsy data searchable and minable.
- Developed frontend and backend with Ruby on Rails.
- Used Agile methodology to work with a team of Pathologists.

MAJOR PROJECT (II): REDESIGNED REPORT-GENERATIONS

- Redesigned the entire custom report generation system and added new features (like custom formatting)
- Reduced the codebase to less than 20% of its original size and cut the report creation time by 30% (apprx.)

MINOR PROJECTS

- Developed an integration with Dropbox using their APIs that automated data transfer, resulting in faster research collaboration.
- Enhanced MDILog, the company's flagship product, by adding and modifying key features.

Enterprise Applications, Ferris State

Big Rapids, Michigan

DB PROGRAMMER ASST. | STACK: PYTHON, SQL, ORACLE SQL - PL/SQL, LINUX, SHELL SCRIPT, DATABASE MANAGEMENT

Sep. 2024 - Present

- Developed SQL procedures for data exports to Handshake, the university's job portal.
- Diagnosed and resolved SQL procedure errors, ensuring data accuracy and integrity.
- Built Bash scripts for automated data transfers between university servers.
- Developed Python Scripts for the university library's data import/export and sanitization.
- Migrated scripts to a config-based architecture, reducing future maintenance needs.

Projects

Poash: An Online Marketplace for Charities

Big Rapids, Michigan

REACT, JAVA, SPRING BOOT, SPRING SECURITY, JWT TOKENS, AJAX, XML, MARIADB, RESTFUL APIs, HTML, CSS, MATERIAL UI

- Developed a fullstack WebApp where people can find charities like products are looked up in a marketplace.
- Built the frontend in React with Material UI for a modern, user-friendly interface.
- Designed a scalable backend in Java (Spring Boot) with a MariaDB database
- Implemented secure authentication & authorization using Spring Security and JWT tokens.

Simulation: Customer Banking Experience

Big Rapids, Michigan

C++, RANDOM LIBRARY, DATA STRUCTURES AND ALGORITHMS, PROBABILITY, STATISTICS

- Developed a probabilistic simulation model to optimize customer experience while minimizing business costs.
- Implemented functions for exponential, normal, gamma, and uniform random variables, ensuring statistical accuracy.
- Applied greedy algorithms to optimize scheduling and improve simulation run times.

Skills

Back-end Java, Spring Boot, Ruby, Rails, REST APIs, Integration & Unit Testing, Model View Controller (MVC), SOLID

Front-end React, JavaScript, CoffeeScript, Rails, Erb, Slim, Material UI, Bootstrap, HTML5, CSS, SASS

Programming C++, Python, Bash, Assembly, Parallel Programming, Micro-Architecture, Data Structures and Algorithms, Object Oriented

Databases SQL, ORACLE SQL, PL/SQL, MSSQL, MariaDB

Miscellaneous Mathematica, Figma, Git, Github, Simulations, Mathematical Modeling, Agile, LLM prompting, Latex, VS Code, Eclipse IDE

Honors & Awards

2018 **Olympiads**, Qualified for Nationals in Mathematical Olympiad
2022 **Semi-Finalist**, Michigan Collegiate Startup Challenge

India
Lansing, Michigan

Volunteering

Tutor

MATH CLUB | FERRIS STATE UNIVERSITY

- Tutored fellow students who came to the Math Club for help with their Math courses.

Big Rapids, Michigan

Oct. 2021 - May. 2021

Peer Mentor

HONORS PROGRAM | FERRIS STATE UNIVERSITY

- Mentored around 20 incoming Honors freshmen. Helped the students in navigating life in Ferris.

Big Rapids, Michigan

Aug. 2022 - Dec. 2022