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EIAN FERBA

Software Engineer

EMPLOYMENT HISTORY

CREW CHIEF / MARKETING SPECIALIST - INTERN **May 2024 - Aug 2024**
College Painting Company

• Managed resources and led marketing strategies, resulting in a 45% increase in customer base.

- • Coordinated with clients and team members, achieving total sales of $80,000.Streamlined project workflows, enhancing team efficiency and contributing to the successful completion of multiple projects on schedule.
- Conducted market analysis to refine marketing strategies, leading to a noticeable increase in targeted outreach and engagement.
- Fostered strong relationships with clients, ensuring clear communication and alignment, which significantly improved client satisfaction ratings.

EDUCATION

BS | COMPUTER SCIENCE **May 2027**
Indiana University-Bloomington

ASSOCIATES | GENERAL STUDIES **Aug 2023**
IvyTech

GPA: 3.9/4.0 • Key Coursework: Principles of Business Management, Principles of Engineering, Civil Engineering & Architecture

LANGUAGES

Java, Python, C, SQL.

PROJECTS

FULL AUTHENTICATION SYSTEM
Backend Auth System | Personal Project

- Engineered a full-featured authentication and authorization system using **Node.js**, **Express**, **JWT**, and **OAuth2** (Google)
- Implemented secure **role-based access control (RBAC)** to enforce granular permissions across protected API routes
- Integrated **bcrypt** for password hashing, added **rate limiting** and account lockouts to mitigate brute-force attacks
- Designed RESTful API endpoints following best practices and documented using **Postman**
- Built with a **MongoDB** backend and fully tested with **Jest**, focusing on session handling, token refresh flows, and error edge cases
- **Tech Stack**: Node.js, Express, JWT, OAuth2, MongoDB, bcrypt, Postman, Jest, Docker

BACKGROUND JOB QUEUE SYSTEM
Async Job Queue System | Personal Project

- Built a scalable background task processing system using **Redis** and **BullMQ**, supporting delayed jobs, retries, and exponential backoff
- Designed modular architecture for asynchronous tasks like email notifications and file processing, improving system throughput by 30%
- Developed a real-time job tracking dashboard with job status updates, error logs, and performance metrics
- Ensured **idempotency** and fault tolerance across job retries to avoid data inconsistencies
- Packaged the system using **Docker** and integrated it with a simulated API service for end-to-end testing
- **Tech Stack**: Node.js, Redis, BullMQ, Docker, Express, JavaScript, CI/CD (GitHub Actions)