

ISAAC DUGAN

 isaacdugan.space  isaacd4444@gmail.com  github.com/idugan100

Experience

CrunchAtlas

Sep 2024 – Present

Software Engineer

Manchester, NH

- Fine tuned open source large language model to improve performance on complex analysis tasks and to improve domain vocabulary and specialization
- Engineered data pipelines to collect relevant domain related information and transform it into training datasets
- Led configuration, and ongoing management of an AWS account, ensuring efficient use of cloud resources across multiple projects optimizing cost, security, and performance through resource monitoring, IAM policies, and cost-control measures

Booz Allen Hamilton

Jun 2024 – Aug 2024

Software Engineer

Annapolis Junction, MD

- Developed a machine-learning-driven audio processing and analysis platform for acoustic keylogging
- Implemented API endpoints for file processing, AI clustering, and advanced analytics along with a background job queue for long running training tasks
- Leveraged automated testing, CI/CD, and containerization to engineer performant and maintainable code

Open Professional Group

Jan 2023 – May 2024

Junior Software Engineer

Westminster, Maryland

- Led myself and another developer in refactoring a data validation engine which deduplicated logic and improved parsing of xls, xlsx, zip, pgp and gpg files reducing manual data review by 50%
- Pioneered use of automated testing on project by creating a detailed proposal, writing an initial test suite of 85 tests, educating fellow developers about automated testing practices, and updating team practices to require tests
- Designed and implemented a new subsystem of the application to automate of file transfers complete with error handling, reporting, logging, and configuration management inside the application's UI

GreenerVolts

Jun 2022 – Aug 2022

Software Engineering Intern

Frederick, Maryland

- Developed an LED upgrade estimation tool that takes project details and automatically generates project estimates, energy savings documents, and places orders for replacement lights in the warehouse management system
- Improved user experience by optimizing a search loading time by 30 seconds and enhancing search functionality in response to user feedback

Education

Salisbury University

Bachelor of Science in Computer Science - Software Engineering Track

GPA: 3.93

Database Systems, Software Engineering I/II, Object Oriented Programming, Web Design, Artificial Intelligence

Projects

GoKV | github.com/idugan100/GoKV

- Created a concurrent, in-memory key value store that can handle 90,000+ reads/writes per second
- Implemented over 35 Redis compatible commands that can be used by the Redis-Cli or any other Redis-compatible client

Salisbury Analytics | www.salisburyanalytics.com

- Developed an university analytics SaaS complete with grade distributions, GPA trends, professor reviews, enrollment trends, financial outcomes, course times, student demographics, and billing management
- Promoted website at Salisbury University and have 50 registered users and over 500,000 page visits to date

Hackathons

- HackUMBC 2024: won second place overall and best educational software with an AI powered exam generator
- Bitcamp 2024: won first place overall with a terminal/cloud journaling system
- HenHacks 2024: won best cybersecurity software with a dependency vulnerability scanner for Haskell codebases
- Hoyahacks 2024: built a retrieval-augmented generation chatbot trained on scraped data
- HackUMBC 2023: won third place overall with an AI facial recognition security software

Technical Skills

Go, PHP, Laravel, Python, FastAPI, SQL, Redis, Angular, React, Tailwind, HTMX, Automated Testing, Git, AWS, Docker