BANIN ABRAR

baninabrar.me — babrar@uwaterloo.ca — in/baninabrar — github.com/babrar

SUMMARY

· C++, Python, Node.js, Perl, React, SQL; AWS, Docker, Kubernetes, PostgreSQL, Pandas
· Experience with systems design, application deployment, backend development, optimization

EXPERIENCE

UW Management Consulting Club *Waterloo, ON*
Technical Lead (Web Development) Jan'19 – Present

· Design lead for a cross-platform responsive website enlisting React and Ruby on Rails
· Developing a containerized microservices-compliant backend architecture for k8s deployment

JANA Corporation *Aurora, ON*
Software Development Intern (Model/Infrastructure) Sep – Dec '18

· Led software implementation of probabilistic model for distributed gas transmission lines
· Redesigned asset storage and hashing in PostgreSQL to improve system throughput by 90.32%
· Deployed Dash integrated Flask application to internal servers using Apache as reverse-proxy
· Authored an internal knowledge base scraper to extract relevant data from user-defined queries
· Built custom git development environment tools and automated update integration into web app

Integrated Device Technology (IDT) *Waterloo, ON*
Software Engineering Intern (Algorithm/Performance) Jan – Apr '18

· Improved proprietary H.265 compression's load distribution across multiple compute cores
· Increased pixel metadata retrieval rate by 75.81% over open-source implementation in x265
· Optimized H.264 FPGA's pipeline architecture in Verilog, reducing total negative slack by 30%
· Wrote client-side scripts to improve SSH compatibility in the company's internal git workflow

PROJECTS

HikePal *git.io/fhK8p*
Node.js, MongoDB, ejs

· Built a Heroku-hosted RESTful Node.js application to serve a geotagged collection of campsites
· Utilized Passport.js to implement authentication and MongoDB to achieve lightweight storage

GeekCane *git.io/fh55q*
C, C++, GNU Toolchain

· Led an embedded systems project for designing a smart walking-aid for the vision-impaired
· Implemented a proximity-based warning system through ultrasonic signal probing in Omega-2

UltraInstinct *git.io/f4dhQ*
Flask, Jinja2

· Designed a Twitter API based Flask application that analyzes users based on recent activity
· Utilized IBM Watson's natural language processing API to perform tweet sentiment analysis

EDUCATION

University of Waterloo Sept '17 – Apr '22 *(expected)*
Candidate for Honours Bachelor of Applied Science in Computer Engineering

· President's Scholarship of Distinction

Relevant Coursework

Algorithms and Data Structures, Full Stack Web Development, Docker and Kubernetes