

BANIN ABRAR

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SUMMARY

- C++, Python, Node.js, Perl, SQL; Docker, Kubernetes, AWS, Nginx, 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 deployment on AWS

JANA Solutions

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

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

Smart-Cane

git.io/f4d9G

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

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