Banin Abrar

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SUMMARY

· Python (NLP, Pandas, Flask), JavaScript (Node.js, React, Express), C++, Perl, SQL, Bash
· MongoDB, Postgres, Hadoop, Presto, Hive, Docker, Git, Jenkins, OpenSSL, RESTful services

EXPERIENCE

FLIR Systems Inc. (Aeryon Labs)   *May − Aug '19*
Data Tools Intern   *Waterloo, ON*

· Architected a cloud-agnostic data warehouse solution to deal with rapidly evolving schemas
  and to unify data tooling across all engineering teams.
· Created a Presto-on-Hive configuration to achieve **80% - 100%** lower latency on read times
  from data warehouse compared to default HiveQL.
· Added Redash to data pipeline for easily generating analytics dashboards from queried data.
· Secured Hadoop services by adding perimeter security and setup single-sign-on for data services.

JANA Solutions   *Sept − Dec '18*
Software Development Intern   *Aurora, ON*

· Built a data analytics backend in Python for the company's core probabilistic modelling software.
· Refactored core schemas and improved company-wide asset data retrieval time by **200%** in Postgres.
· Added smart visualization features to existing data analysis tool using React components in Dash.

Integrated Device Technology, Inc. (IDT)   *Jan − Apr '18*
Algorithm Engineering Intern   *Waterloo, ON*

· Implemented Intel's 256-bit AVX instructions in pre-processing stage of H.265 encoder, allowing for
  wider memory operations and accelerating RGB data retrieval rate from pixels by **75%**.
· Built register pipeline designs on H.264 FGPA in Verilog, that reduced negative slack by **30%**.

OTHER EXPERIENCE

UWaterloo Midnight Sun - Solar Race Car

· Researched non-linear optimization problems pertinent to the application of solar cells modules
  on a race car prototype and successfully modelled approximate solutions in Python.

Waterloop Student Design Team

· Migrating current static website to use a MERN stack complete with a new set of features.

PROJECTS

udp-torrent

· Web-based BitTorent client in Node.js that uses low overhead UDP trackers for P2P file transfers.

EDUCATION

University of Waterloo   *Class of 2023*
Candidate for Honours Bachelor of Applied Science in Computer Engineering

· President's Scholarship of Distinction for having more than 95% admission average.

· Relevant Coursework : Algorithms and Data Structures, Digital Circuits and Systems, Embedded
  Systems Design, Object Oriented Programming, Web Development