


CONTACT

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SKILLS

Languages

C/C++ | Java | HTML | CSS
SQL | R | Python | Verilog

Tools/Technologies

Git | UNIX | Eclipse | VSC
Microsoft SSMS | IBM DB2
Excel | Microsoft Office

Methodologies

Agile | SDLC | PMO

PROJECTS

Data Structures/Algorithms (C++)

Implemented with minimal runtime/cost:
(De)Queue (Linked List), Hash Table,
Quadtree, Minimum Spanning Tree
(Kruskal), (Un)Directed Graph (Dijkstra).

Sys. Programming/Concurrency (C)

Developed multi-threaded web crawler to
cURL image strips utilizing IPC shared
memory queue (producer-consumer), then
reconstructed image with hexdump.

Real-Time Operating Systems (C)

Implemented a real-time task scheduler
supporting aperiodic (preemptive priority)
and periodic (EDF) tasks. Supports inter-
task communication using mailboxes
(blocks task when full). Task and mailbox
memory allocated w/ Binary buddy system.

Operational Database (C++)

Takes user or .csv input, outputs to file or
console, can sort/search (self-teaching)

Personal Website (HTML/CSS)

Simple portfolio website (self-teaching)

AWARDS

College Board AP Exams

AP Physics 1 - Level 4

AP Calculus AB - Level 4

UWaterloo Math Contests

Euclid - Top 25%

Galois - Top 25%

Cayley - Top 25%

CIMC - Top 25%

TONY SHEN

BASC 2023 - HONOURS COMPUTER ENGINEERING

EXPERIENCE

Business Systems Analyst

TD Securities | Jan 2021 - Apr 2021

- Agile team environment for reference data application, used JIRA for monthly sprints (new security reference data/fields, app maintenance, adhoc requests, etc.)
- Oversaw sprint end-to-end: requirement gathering (JIRA upkeep), development, SIT/PAT testing (below), deployment (ServiceNow CR), sprint retrospective
- Wrote SQL (SSMS) queries to verify TD data tables include new fields (SIT)
- Used Postman API (request/response) and application GUI to verify downstream consumers have access to all new information (PAT)
- Remediated internal excel sheets by consolidating with Bloomberg Terminal

Access/Monitoring and Support Analyst

TD Bank | Sep 2019 - Dec 2019

- Innovative Automation (IA): leverages Blue Prism RPA to automate repeatable business tasks with digital workers (DW) executing keystrokes on machines
- Used Blue Prism to create/maintain process schedules (that execute tasks sequentially) to run during peak times corresponding to business need
- Established automated password reset process (exception handling) for security
- Performed root cause analysis to both resolve PROD issues and to reduce the number of resets required by 19% in first month
- Managed project documentation: Gantt charts, project dashboards, DW lookup

Information Security Analyst

TD Bank | Jan 2019 - Apr 2019

- Project Lead for Crowdsourced AI POC: coordinated Legal, Compliance, ERM, InfoSec, Data Governance teams using project docs (Gantt charts, SOW, risk ass.)
- Wrote SQL (SSMS) queries to pull datasets from warehouse, then remediated poor data using Excel functions: VLOOKUP, pivot tables/reporting, VBA & macros
- Increased company employee cybersecurity awareness by 24% over first month
- Presented monthly security event summary to execs, featuring KPIs (with trends and outliers) gathered from IBM QRadar SIEM, ServiceNow
- Managed access with ServiceNow, did monthly role owner attestation (governance)

Cashier/Drive Thru Customer Service

Tim Hortons | Aug 2017 - Aug 2018

- Developed strong client-facing aptitude while working in a large team environment

EDUCATION

University of Waterloo

Waterloo, Ontario, Canada | Sep 2018 - Present

- Candidate for Bachelor of Applied Science 2023 - 3B Honors Computer Engineering
- Data Structures and Algorithms, Database Systems, Probability Theory & Stats, Systems Programming & Concurrency, Real-Time Operating Systems, Adv. Calculus

EXTRA-CURRICULAR

WatLock Design Team

Waterloo, Ontario, Canada | Oct 2018 - Apr 2019

- Business/Finances team, wrote funding proposals for UBC airlock competition
- Pitched design team to sponsors: UWaterloo faculties and corporate sponsors

Ontario Provincial Honour Band

Toronto, Ontario, Canada | Oct 2017 - Nov 2017

- Principal Bass Clarinet, rehearsed/performed with 100 peers over one week camp