HUGO KLEPSCH

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EDUCATION

University of Guelph September 2015 - April 2020
B.Comp. Software Engineering (Co-op), Honours. Marketing minor *Guelph, ON*

- Dr. Mary McLeish Scholarship recipient (Highest GPA in Software engineering major)
- 2018 Braithwaite Business Scholarship
- Deans list

EXPERIENCE

Arctic Wolf Networks May 2018 - August 2018, January 2019 - August 2019
Member of technical staff *Waterloo, ON*

- Used Esper, Apache Flink and Hadoop as part of a complex event processing pipeline to find patterns in unbounded series of real-time events
- Helped design and build time-series anomaly detection system
- Wrote independent auto-scaling services as part of a data processing pipeline that processed 22 billion messages per day
- Added metrics and stability alerts to services

Carnegie Technologies May 2017 - December 2017
Native back-end developer *Waterloo, ON*

- Developed native C++ GPS and ephemeris libraries for use in embedded devices
- Participated in the design of, and implemented REST style microservices using Node.js and RabbitMQ
- Designed and implemented C++ and Node.js RabbitMQ messaging library with support for a variety of usage patterns (Consumer, Requester)
- Designed and implemented C++ JSON manipulation and validation library with support for proprietary extensions to JSON schema specification

OPEN SOURCE CONTRIBUTIONS

netmail-open/wjelement
November 2017
- Found and fixed bug causing library not to compile with glibc
- Added date-time support to JSON schema verification system

avast-tl/retdec
December 2017
- Proposed and added Docker support

DefinitelyTyped/DefinitelyTyped
July 2017
- Added typescript type definitions for various Node.js libraries

VOLUNTEER HISTORY

Alumni and programming mentor, former student member September 2013 – Present
M. M. Robinson high school's FRC team, "MMRambotics", team 2200 *Burlington, ON*

- Created various sub-systems for functional mechanisms
- Used PIDF closed-loop control, computer vision, motion profiling, path following, etc. for autonomous control of robot
- Used encoders, potentiometers, limit switches, line followers, ultrasonic rangefinders & cameras as input data for control loops
- Taught high-school students about control flow, program structure, git & the above

TECHNICAL STRENGTHS

Computer Languages	C, Python, Java, C++, Bash, Node.js
Tools	Linux, Git, Docker, Command-line tools, Flink, Esper, Hadoop, ElasticSearch, AWS-{S3, EC2, ECS, EMR}, UML, RabbitMQ, Vim, LaTeX
Development Practices	Waterfall, Agile: {Scrum, Spiral}, Risk management, Technical reviews, Measurement, Configuration management, Quality assurance