HUGO KLEPSCH

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WORK EXPERIENCE

Arctic Wolf Networks   *Waterloo, ON*
Senior Developer   January 2023 - Present
Member of technical staff   May 2018 - August 2018, January 2019 - August 2019, July 2020 - December 2023
- · Controlled schema chaos by integrating a schema registry into a legacy data pipeline
- · Developed many streaming ETL (Extract, Transform, Load) pipelines while integrating hundreds of security-related data sources (Identity providers, firewalls, DHCP/DNS/NTP/email/Domain servers, antivirus/endpoint/user software, network scanners etc)
- · Worked with stakeholders to bring a product from concept to delivery
- · Used Esper, Apache Flink and Hadoop as part of a CEP (Complex Event Processing) pipeline to find patterns in an unbounded series of real-time events
- · Lead design and implementation of auto-scaling microservices supporting over 11 million messages per second
- · Integrated new functionality without downtime into a data analysis pipeline processing 1 trillion messages per day

EDUCATION

University of Guelph   *Guelph, ON*
B.Comp. Software Engineering (Co-op), Honours. Marketing minor   September 2015 - April 2020
- · Dr. Mary McLeish Scholarship recipient (Highest GPA in Software engineering major)
- · 2018 Braithwaite Business Scholarship
- · Dean's Honours list

PERSONAL PROJECTS

Maintainer of
`caddy-dns/linode`,
`HugoKlepsch/libdns-linode`
August 2025-Present
- · Implements connector to Linode DNS nameserver API so that the Caddywebserver can automatically complete DNS-01 ACME challenges

`HugoKlepsch/Go-Snake`
June 2021
- · Created "Snake" AI to battle other snakes in battle-royale snake competition
- · Won 1st in Platinum league out of hundreds of other competitors
- · Various versions used Dijkstra and A* path-finding algorithms to optimize food intake
- · Used Minimax algorithm to find game moves with highest chance of success

VOLUNTEER HISTORY

Mentor, programming teacher and alumni   *Burlington, ON*
FIRST Robotics Competition (FRC) team 2200   September 2013 – Present
- · Practical experience modeling and implementing effective control algorithms for robot mechanisms including: arms, elevators, flywheels, holonomic and differential drive platforms
- · Used PID + Feed-forward closed-loop control, OpenCV computer vision, trapezoidal motion profiling, Bézier curve path following for autonomous control of robot
- · Used encoders, potentiometers, limit switches, line followers, LiDAR, ultrasonic rangefinders & cameras as sensor data for control algorithms
- · Captured & annotated training data, fine-tuned YoloV8 and deployed real-time object detection (bouding boxes) model to TensorRT platform
- · Taught high-school students about control flow, program structure, git & the above

TECHNICAL STRENGTHS

Computer Languages

Python, Go, Java, C/C++, Bash, Node.js

Tools & Tech

Linux, Git, Docker, K8s, Prometheus metrics, Command-line tools, Kafka, Avro, Hazelcast, Flink, Esper, Hadoop, Redis, PostgreSQL, ElasticSearch, AWS-{S3, SQS, Lambda, ElastiCache, CloudFormation, CloudWatch, EC2, ECS, ECR, EMR, GuardDuty, Athena}, CUDA, OpenCV, TensorRT, FreeCAD, OnShape, UML, RabbitMQ, AI developmer aids (ex: Claude Code), Vim, LaTeX

Development Practices

Agile: {Scrum, Spiral}, Waterfall, DevOps, CI/CD, AI developer aids, Test Driven Development, Risk management, Technical reviews, Quality assurance