ROBERT MASCITELLI

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PERSONAL SUMMARY

Experienced **Software Engineer** offering an academic background in **Computer Engineering** and **6+ years** of experience driving product-focused software development, debugging, and optimization activities. I have a passion for diving into complicated systems and gaining a deep understanding of how they work - then sharing my knowledge with the team so that we can all grow stronger!

SKILLS AND PROJECTS SUMMARY

Technical Skills:

- **Languages:** Golang, C / C++, Python, JavaScript/TypeScript
- **Tools:** SQL (Postgres), noSQL (MongoDB), Docker, Ansible, Terraform, Nginx, gdb / WinDbg
- **Platforms:** AWS, GCP, Grafana, Jenkins, Prometheus, Datadog

PROFESSIONAL EXPERIENCE

Software Engineer III | Synctera Inc. – Toronto, ON **July 2024 - present**

- **Tech Stack:** Golang, Typescript, PostgreSQL, GCP (Google Cloud Platform), Terraform
- Designed and implemented RESTful microservice APIs and platform observability tools for an early-stage, venture-funded Banking as-a-Service (BaaS) startup, post-Series A.
- Primarily focused on building out key features for our usage-based billing system, as well as occasionally delivering tools for platform visibility and user management. Lead feature design discussions, secured cross-team buy-in (Product, Engineering, Finance/PaymentOps) and drove execution via task delegation and ownership of critical features.
- Mentored new team members and enforced adoption of backend code standards as part of a company-wide effort to popularize full-stack delivery of features.

<u>Key Achievements:</u>

- ➔ Developed a solution to instantly secure $100k+ at month-end, avoiding months of waiting for invoice payment, by building a direct-billing pipeline to automatically pull funds from accounts. Collected user banking info in a Typescript frontend, which was used by Golang microservices to initiate ACH payments. Tracking and alerting related to payments was achieved using GCP PubSub to push events to subscribers.
- ➔ Eliminated over 5 days of high-pressure, error-prone work from Finance's month-end, and massively reduced the use of Excel and Slack for accounting by building out a dynamic invoicing system to implement a wide array of common billing scenarios.
- ➔ Eliminated a common, recurring source of frustration (for users and engineers) related to RBAC and permissions by developing several features to provide clarity and access to our system (middleware to audit RBAC info, full-stack features to streamline the requesting/granting of roles/permissions)
- ➔ Leveraged AI tools (Claude, Cursor) to go from only delivering backend solutions to delivering several full-stack solutions and driving improvement to many other areas of the platform that my team owns.

Software Engineer | Rapid7 Inc. - Toronto, ON **Jan 2021 - June 2024**

- **Tech Stack:** Golang, C++, Python, Docker, AWS, Grafana, PostgreSQL
- Designed new features in Golang, C++ and Python for endpoint security solutions. Worked on an Agile team managing over 15 million Windows, Mac, and Linux users worldwide for a global cybersecurity company.

Key Achievements:

- ➔ Prevented loss of 2 million MacOS customers by designing and developing a C++ library (used by Python ctypes) for concurrent event collection on MacOS using the EndpointSecurity API. Concurrency was profiled on Linux using gdb and perf to ensure concurrency requirements were being met. Provided visibility on key performance metrics using PostgreSQL and Grafana.
- ➔ Accelerated my teams' release process from 10-12 days to 2-3 days by developing a collection of worker jobs to perform automated testing and package-management operations. Jobs were developed in Python, using Docker/AWS ECR to store testing snapshots. Tests are launched on EC2 instances through Jenkins, using S3 to store any other needed files.
- ➔ Improved performance of Grafana dashboards by proposing and developing changes to metrics storage – allowing us to scale up to monitoring 10x the customers without performance degradation of dashboards.

Embedded Software Designer | Evertz Microsystems - Burlington, ON **Jan 2019 – Sept 2020**

- **Tech Stack:** C and C++, Python, JavaScript
- Produced various features in C and C++ for embedded devices running Linux for the leading global manufacturer of broadcast equipment that delivers content to TV sets, on-demand services, mobile devices, WebTV, and IPTV.

Key Achievements:

- ➔ Developed a loadable kernel driver that allows embedded devices to be managed by a new Controller Area Network (CAN) bus peripheral. Built a simple web interface using C++ and JavaScript that can be used to register and control the CAN bus.
- ➔ Developed an object hierarchy in C++ to implement devices described in AMWA NMOS media specifications. Created a Python script to automatically compose header files that was adopted by 2 developers across 10 products

EDUCATION SUMMARY

BEng in Computer Engineering | McMaster University – Hamilton, ON **Graduated Dec 2018**

Relevant Coursework:

- Digital Systems Design | Systems Programming (C/C++) | FPGA Development (Systems Verilog)