# Michael Garner

Dorval, Oc

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Languages: English/French

## PROFESSIONAL SUMMARY

Multidisciplinary engineer and technician with expertise in the design, maintenance, repair, and deployment of software, electronics, and electro-mechanical systems. Combines strong analytical and design skills with extensive hands-on technical experience, delivering practical and innovative solutions that bridge digital technologies, physical systems, and automation.

## **EDUCATION**

Software Engineering (B. Eng)

CONCORDIA UNIVERSITY

Montreal, Québec

**Automated Systems Electro-mechanics (DEP)** 

ROSEMONT TECHNOLOGY CENTER

Rosemont, Québec

PLACE CARTIER Beaconsfield, Québec

**High School Diploma** Completed 2003

### PROFESSIONAL EXPERIENCE

**Software Consultant** 2022-Present

VICTRIX SOLUTIONS INC

Montreal, Québec

- Specialized in Microsoft Power Platform and SharePoint delivering customized solutions to clients' business needs
- Developed and maintained SharePoint Online Solutions for business automation and collaboration
- Designed and implemented Microsoft Power Apps to create customized business applications
- Completed training in Microsoft Copilot Studio, leveraging AI in productivity and automation solutions
- Completed training in Power Platform technologies (Power Automate, Power Apps, Power BI, Power Virtual Agents)
- Worked with SharePoint development and customization, including SPFx (SharePoint Framework)
- Gained practical experience integrating solutions with Microsoft Azure services
- Prototyped HR chatbots using Microsoft Copilot as an internal project and potential client-facing solution
- Trained and certified in AI levels 1 and 2 of ChatGPT: Artificial Intelligence Revealed
- Participated in the O-Studio team, contributing to the Microsoft Power Platform and Dynamics 365 development
- Collaborated with business stakeholders to modernize systems, automate workflows and improve organizational performance

Completed 2022

Completed 2008

**Software Developer**BENEVA (Contract - Victrix Solutions Inc)

Montreal, Québec

- Participated in a large-scale migration project following the merger of SSQ and LaCapitale to form Beneva
- Wrote PowerShell scripts to streamline migration processes and ensure data integrity
- Executed automated migration software, including ShareGate, to ensure accurate and efficient data migration
- Developed SharePoint sites and automated workflows to enhance team collaboration and automate manual processes
- Trained employees on new systems and tools, enabling a smooth transition during the migration, including M365 applications
- Trained and guided employees on Microsoft Copilot integration into M365 applications
- Developed and maintained Business Process Management Systems (BPMS)
- Developed and maintained Customer Relationship Management (CRM) platforms
- · Collaborated with stakeholders to optimize Microsoft tools for maximizing organizational productivity
- Explored and assessed the potential of Microsoft Viva products and presented solutions to upper management
- Participated in SAFe agile framework for project management and delivery

#### **Full Stack Software Engineer**

2021-2022

2022-2024

X Guard Security (Automated pet door contract)

Montreal, Québec

- Developed an AI based object detection software system to control an automated pet door
- Programmed inputs and outputs of a Raspberry Pi, including a camera, motion detector, door locks and nighttime light
- Ensured precise timing and logic flow of door control and lights using Python scripts
- Connected to the system to an online network for real-time monitoring and control using Python and Linux O/S
- Designed and developed web application using HTML, CSS and Python
- · Designed and implemented SQL databases for storing and retrieving images, data, user information and access logs
- Integrated SQL queries into backend services to manage device states and and provide real time reporting to apps
- Provided remote access to door control using the web app and mobile app
- Provided full documentation of each aspect of the system
- Led the project presentation with my team to stakeholders, utilizing an AGILE approach for planning, iteration and delivery
- Contributed to general programming tasks related to system functionality and network synchronization

Business Owner 2015-PRESENT

PLATINUM AUDIO

Lachine, Québec

- Responsible for all aspects and daily management of the business
- Specialized in repairing, troubleshooting, and upgrading vintage and hi-fi electronics
- Hands-on work on hundreds of customer components including power amplifiers, pre-amplifiers, power supplies and tuners
- Performed diagnostics and testing: power and distortion testing, frequency response analysis, and DC offset
- Component replacement, including capacitors, resistor, transistor and ICs (Integrated Circuits)
- Conducted component-level and PCB (Printed Circuit Board) repairs
- Rewired, and soldered circuit boards and components

#### Michael Garner

- Executed detailed troubleshooting of analog and digital circuits to isolate faults and restore functionality
- Performed calibration, alignment, and optimization of audio equipment to factory specifications
- Carried out preventive maintenance and refurbishment, including cleaning, thermal management, and mechanical adjustments
- Maintained and repaired in-house audio and electronic testing equipment to ensure functionality, accuracy and reliability
- Purchasing, repair and refurbishment of electronic equipment for re-sell
- Purchasing of electronic parts, specialized components, and test equipment
- Documented repair processes and results, with examples published on company website and social media
- Designed and built a company website, handling all social media, online presence and digital content
- Responsible for customer service, communication, consultation, and client education on repair options and best practices
- Managed marketing initiatives, client relations, sales and business development

#### Electro-Mechanical Equipment Manager and Technician

2016-2018

MINI SAFARI

Ottawa, Ontario

- Serviced, repaired and maintained all electronic and mechanical equipment, including motorized ride-on animals for children
- Worked extensively with batteries, controllers, motors, gears, metal frames, charging units and coin/token operated devices
- Performed Mechanical work such as drilling, cutting, welding and structural adjustments on equipment frames
- Conducted electronic controller programming
- Repaired, upgraded and replaced electronic and electrical components
- Wired and installed electronic and electrical components using solder and/or electrical connectors
- Calibrated and aligned steering mechanisms to ensure smooth and safe operation
- Modified equipment to improve reliability, including recurring issues with stock equipment and components
- Replaced and maintained wheels, bearings and other moving parts to operational lifespan
- Led the purchasing, maintenance and repair of all electronic and mechanical equipment
- Provided on site and emergency repair of all equipment
- · Managed product selection, conducted quality assurance and created planned maintenance schedules
- Designed, tested and prototyped equipment ensuring high standards for performance, reliability and innovation
- Provided professional technical advice and guidance on equipment usage, reliability and safety

#### **Assistant Supervisor & Technician**

2009-2016

TRANSTRONIC INC

Dorval, Québec

- Oversaw the production of new electronic equipment for railway industry, primarily DC-to-AC power converters
- Assembled and modified circuit boards with both through-hole and surface-mount components
- · Hand-built components including transformers, coils, and flyback units for integration into converters
- Performed detailed testing and quality control on finished products, sub-assemblies, and purchased components
- Tested and inspected used equipment to assess condition, repair needs, and reusability
- Conducted troubleshooting of both new and used electronic systems to identify and resolve faults
- Managed the assembly of completed products, ensuring compliance with industry standards and specifications
- Custom-built wires and harnesses with connectors for specific product requirements
- Applied basic machining techniques, including as drilling and tapping, for custom fits and repairs

- Created 3d models using CAD and related software to support engineering and purchasing of 3D printed components
- Coordinated shipping and receiving processes, including incoming component testing and verification
- Organized stock room and inventory, creating purchasing requests and ensuring availability of critical components
- · Completed extensive paperwork for repairs, purchasing and documentation of assembled products
- Contributed to engineering efforts, including Assembly-to-Java conversions for obsolete electronic ICs
- Advanced from assembly and testing roles to full production management responsibilities, supervising workflows and optimizing efficiency

Technical Support Agent 2007-2009

STELPRO DESIGN

Saint-Bruno de Montraville, Québec

- Provided technical support and guidance to clients, potential clients, distributors and in-house employees
- Responded to phone calls and emails, troubleshooting issues and offering professional advice on product selection and usage
- Performed heat loss calculations to size electrical heating systems and determine power requirements
- · Applied knowledge of voltage requirements and various power systems, including single-phase and multi-phase installations
- Advised on the appropriate products and variations for specific environments and applications
- Worked closely with electricians on-site to support installation and repair of in-floor heating cables and related systems
- Organised repairs and prepared repair kits, with a focus on in-floor heating solutions
- Participated in meetings to provide product expertise and feedback on customer needs
- Maintained extensive knowledge of product line, complimentary products, and their applications across residential, commercial and industrial contexts

Electro-Mechanical Technician 2006-2007

**ELANTECH** 

Saint-Laurent, Québec

- Assembles custom and standard shrink wrap machines from start to finish
- Performed metal work including cutting, machining, drilling and welding of components
- Assembled and connected all wiring and electrical systems for machine operation
- Programmed and optimized electronic controllers to ensure efficient and reliable system performance
- Installed, aligned, and fine-tuned equipment on-site for client deployment
- Conducted rigorous in-house and on-site testing and quality control of machines prior to delivery
- Performed repairs, maintenance, and refurbishment of equipment both in-house and at clients sites
- Maintained organized work areas, tools, and materials to support safe and efficient operations

Sales Representative 2005-2006

**EOUINOX MARKETING SERVICES** 

Dorval, Québec

- Conducted marketing campaigns to promote and sell a variety of products
- Established and maintained client relationships through effective communication and follow-up
- Presented product features and benefits, tailoring recommendations to client needs
- Worked collaboratively with the sales team to support marketing strategies and achieve sales targets

Processed and finalized sales orders while ensuring customer satisfaction

## SUMMARY OF TECHNICAL KNOWLEDGE

## Software Languages & Projects

GITHUB: https://github.com/MikeG3

Advanced: Java, Python, C++, HTML, PowerShell

Good: Javascript, C, C#, .NET, CSS Migration project

Framilliar: Ruby, NodeJS, TypeScript, GO Object Detection - Automated Door System

Other: M365, D365, PowerPlatform (Power BI, Map application with React Native

Power Apps, Power Automate, Copilot Web crawler

Studio - Power Virtual Agent), Data Indexer for Information Search & Retrieval SharePoint, ShareGate, Copilot, Flask, Backend compiler (Object oriented language)

Projects:

Django, React Native, OpenCv

Web based online shop
Web design & 2d animation

Operating Systems: Windows (3.1, 95, 98, 2000, XP, PDI controlled elevator

Vista, 7, 8, 10, 11), Linux PLC Programming of electro-mechanical equipment (Debian, Ubuntu), iOS, DOS

#### **Advanced Areas of Expertise:**

Compiler Design, Information Search and Retrieval, Software Architecture, Application Development, AGILE, Databases, Networking & Communication, Software Testing and Quality Assurance, Microsoft Support and Development for M365 & D365 including Power Platform and Copilot

## **Electrical & Electronic**

#### Circuit Design & Diagnostics:

- Analog, digital, AC and DC circuits
- Control systems, logic circuits and microprocessors
- Troubleshooting, fault isolation and board level-diagnostics
- Circuit simulation

#### **Testing & Measurement:**

- Testing with oscilloscopes, function/signal generators, spectrum analyzers and multimeters
- Testing voltage, current, resistance, capacitance, diode polarity and transistor gain (transistor matching)
- Frequency spectrum, signal and distortion tests
- High Potential testing for grounding & chassis safety

#### **Assembly & Soldering:**

- Certified in soldering: through-hole and surface mount technologies
- Assembly and modification of PCBs (Printed Circuit Boards)
- Component replacement
- Assembly of coils, transformers and flyback

#### **Power & Control Systems:**

- AC/DC motors, drives and control circuits
- Single-phase and three-phase power systems
- Relays, contactors, PLCs and PID controllers
- Grounding, safety and electrical code considerations

## **Mechanical**

### Fabrication & Machining:

- Cutting, drilling, tapping and sheet metal work
- Assembly of frames, enclosures and supporting structures
- Welding with acetylene, stick and MIG processes
- Hand tools: filing and fitting
- Machine tools: drill press, milling machine, lathe
- Machining and assembly of pipes, conduits and fasteners

### **Mechanical Systems:**

- Assembly and maintenance of gears, bearings, pulleys, shafts, chains and motorized systems
- Vertical/horizontal alignment techniques with gauges and laser devices
- Preventative maintenance, lubrication and mechanical adjustments

# **Electro-Mechanical**

#### **Integration of Systems:**

- Pneumatic and hydraulic circuits: actuators, pumps, compressors, cylinders, valves and sensors
- Integrated electronic controllers: PLC, PID, embedded electronics and relay based systems
- Programming and calibration of electro-mechanical devices for precision operation
- Relay and electro-mechanical contactor circuits

### Maintenance & Reliability:

- Troubleshooting and service electro-mechanical devices and systems
- Calibration and alignment of electro-mechanical systems
- Documentation processes, maintenance scheduling and ensuring compliance with safety standards

## **ACHIEVEMENTS**

Iron Ring Recipient - 2022 The Corporation of the Seven Wardens Inc. CPR and First Aid Training - 2012 Canadian Red Cross Canadian Robotics Competition – 2007 Archemedia champions

## ACTIVITIES AND INTERESTS

Music Guitar Electronics Fitness & Calisthenics Kayaking Hiking Camping & outdoor

References available upon request