

# ZACHARIE PERKINS

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Highly versatile *motorsports professional* dedicated to working in the industry utilizing the thousands of hours working in the field and education obtained through an accredited University. Including a range of custom turbo systems and vehicle systems integration to engine machining and engine component development. Very motivated, meticulous, reliable, and have excellent leadership skills.

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## CORE QUALIFICATIONS

- Custom Engine Blueprinting
  - Custom Engine Machining
  - Custom Engine Development
  - Data Acquisition Systems
  - Engine Management Systems
  - Harness Design & Construction
  - Motorsports Fabrication
  - Precision TIG Welding
  - Mill and Lathe Machining
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## PROFESSIONAL EXPERIENCE

### Co-Owner/Design/Data Engineer- Motorsports Electronics, Westminster, CA [2013 thru Present]

- Develop relations with top level vendors to express needs, develop products, and negotiate pricing.
- Developed and sustain company website, SEO, e-commerce, blog, and forum.
- Developed and implemented efficient spreadsheets by utilizing macros to increase accuracy and reduce wiring harness pin allocation and schematic documentation design time.
- Developed and sustain an extensive database of connector drawings to reduce layout design time and ensure quality documentation.
- Developed and sustain an organized production schedule to track and maintain accurate deadlines.
- Accountable for cost control, budgeting, general accounting, payroll, and full profit and loss reports.
- Implemented a live task list to monitor and accurately update current daily assignments.
- Accountable for tracking and maintaining inventory of supplies, modules, sensors, parts, and tools.
- Accountable for designing and utilizing quotes, S.O.'s, P.O.'s, invoices, and project reports.
- Vehicle integration of AEM, Cosworth, Link Engine Management, MoTeC, Pectel, RaceGrade, Vi-PEC, and Bosch electronic components, engine management, displays, ABS, and data acquisition systems.
- Design wiring harnesses for BMW, Porsche, Lamborghini, Subaru, Lotus, and other motorsports vehicles, providing documentation of current limits, I/O lists, pin-outs, layouts, schematics, and supplies.
- Hand fabricate motorsports/harsh environment wiring harnesses utilizing industry standardized equipment and supplies.
- Accountable for performing QC and system testing for every system built in house.
- Accountable for installation and setup of electronic systems, including CAN communication between modules, sensor calibration, function tests, and diagnostics.
- Data Engineer for VSA Motorsports' Lotus Evora GT4 for Pirelli World Challenge.

### Design Engineer- Apex Speed Technology, Gardena, CA [2013 thru 2015]

- Vehicle integration of AEM, Cosworth, Link Engine Management, MoTeC, Pectel, RaceGrade, Vi-PEC, and Bosch electronic components, engine management, displays, ABS, and data acquisition systems.
- Designed wiring harnesses for BMW, Porsche, Lamborghini, Subaru, Lotus, and other motorsports vehicles, providing documentation of current limits, I/O lists, pin-outs, layouts, schematics, and supplies.
- Hand fabricated motorsports/harsh environment wiring harnesses utilizing industry standardized equipment and supplies.
- Accountable for updating quotes, S.O.'s, P.O.'s, invoices, inventory, and project reports.
- Accountable for performing QC and system testing for every system built in house.
- Accountable for GB Autosport's 911 GT America electronics program driven by Damien Faulkner.

### Manager of R&D and Manufacturing- Covert Tuning, Lewis Center, OH [2012 thru 2013]

- Developed twin turbo systems for the Lamborghini LP-670 SV and the LP-560, including the first set of known long tube turbo manifolds.
- Developed cylinder sleeves and head studs for the Lamborghini LP-560.
- Developed an organizational inventory system for tracking all supplies, consumables, parts, and tools.
- Developed and implemented efficient R&D techniques and procedures to increase production, save time and ensure accuracy.
- Developed and implemented an organizational task system to monitor and accurately update daily tasks.
- Developed and implemented all product jigs to ensure consistency and quality.
- Accountable for all developmental stage fabrication and TIG welding.
- Accountable for custom wiring and diagnostic troubleshooting.
- Accountable for administration and support of R&D staff, including training, performance, and project development.

**Supervisor of R&D and Manufacturing**- IPS Motorsports, Lewis Center, OH

[2011 thru 2012]

- Developed forced induction systems, surge protection oil systems, fuel systems, exhaust systems, cooling systems and various performance based products.
- Developed an organizational inventory system for tracking all supplies, consumables, parts, and tools.
- Developed and implemented efficient R&D techniques and procedures to increase production, save time and ensure accuracy.
- Developed and implemented all product jigs to ensure consistency and quality.
- Developed and implemented an organizational task system to monitor and accurately update daily tasks.
- Accountable for all precision TIG welding on high-end projects.
- Accountable for all developmental stage fabrication.
- Accountable for administration and support of R&D staff, including training, performance, and project development.

**Fabricator/Performance Technician**- IPS Motorsports, Lewis Center, OH

[2011 thru 2012]

- Increased production of custom fabricated parts utilizing efficient design and production techniques.
- Responsible for engine builds, and performance modifications on a variety of performance vehicles ranging from 3000GTs and twin turbo Camaros to twin turbo Corvettes and Lamborghinis.
- Hand fabricated over twenty-five twin turbo systems for fifth-generation 6.2L Camaros.
- Accountable for custom wiring and diagnostic troubleshooting.

**Fabricator/ Performance Technician**- Performance Theory Motors, Columbus, OH

[2010 thru 2011]

- Increased production of custom fabricated parts utilizing efficient design and production techniques.
- Responsible for engine builds, and performance modifications on a variety of performance vehicles ranging from supercharged 370Zs and turbocharged S2000's to twin turbo Vipers and Lamborghinis.
- Accountable for custom wiring and diagnostic troubleshooting.
- Accountable for general service and repair.

**Operations Manager**- Third Shift, Lancaster, OH

[2009 thru 2010]

- Developed extensive database of parts and info related to all performance based vehicles using various market research techniques.
- Developed and maintained company website, SEO, blog, and forum.
- Administered logistical operations for scheduling and directing shop projects.
- Accountable for cost control, budgeting, general accounting, payroll, and full profit and loss reports.
- Accountable for designing and utilizing quotes, S.O.'s, P.O.'s, invoices, and project reports.
- Accountable for the design and fabrication of new forced induction components.
- Accountable for custom engine building.
- Accountable for custom wiring and diagnostic troubleshooting.

**Ariel Corporation Instructor/Trainer**- CTEC, Newark, OH

[2009]

- Instructed twenty-five students to properly utilize Ariel specified procedures on the mill, lathe, and cylinder hone.
- Conducted real-world, dynamic performance testing on twenty-five students to properly utilize Ariel specified procedures on the mill, lathe, and cylinder hone for hiring review.

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**COMPUTER SKILLS**

SolidWorks | Microsoft Office | QuickBooks | HTML5 | CSS | C/C++ | Google Apps for Work  
Search Engine Optimization | Liquid Language | Sublime Text | Photoshop | Illustrator  
MI Tune | MI Build | i2 | PDM Manager | Display Creator | ECU Manager | PC Link G4+  
Pi Caltool | Pi Toolset | Pi Toolbox | Infinity Tuner | Tuner Studio MS | HarnWare | VeSys

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**EDUCATION**

**MoTeC Factory Trained in MI Tune and MI Build**

Associate Degrees of Applied Science in High Performance/Automotive Technology  
Minor in Alternative Fuel Technology

*Completed 4 years towards these undergraduate degrees with only one class remaining.*

UNIVERSITY OF NORTHWESTERN OHIO, Lima, Ohio 45805