**AL DUNSTAN**

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**SUMMARY OF QUALIFICATIONS**

**Experience in all aspects of software development in highly technical and scientific environments.**

**PROFESSIONAL EXPERIENCE**

**Senior Software Engineer** Barracuda Networks, Ann Arbor, MI 7/13 – present

Develop cloud-based commercial email archiving software. Python, Perl, ElasticSearch.

**Software Engineer** General Dynamics, Ypsilanti, MI 6/12 – 5/13

Maintain & enhance image analysis software in a classified environment.

**Software Engineer** OptiMetrics, Inc., Ann Arbor, MI 9/95 – 6/12

Responsible for all phases of custom software development from design to installation and maintenance on topics covering:

* Flash LIDAR-based pilot landing aid, later used to characterize smoke clouds,
* A simulation of the human visual system,
* Optimization of camouflage paint schemes,
* Simulations of military sensor systems and cell phone networks:
* Developed libraries to simplify participation in distributed war games using DIS & HLA protocols.
* Port software from Linux to Windows and from SGI to Linux, expanding it's useability
* Supervise the work of junior developers:
  + A Java GUI wrapped around a FORTRAN model of thermal imagers, making it much easier to use
  + A front-end to develop and feed mission requests to a classified intelligence analysis system
  + A Java GUI to configure a complex sensor simulator

**System Administrator** University Microfilms, Inc., Ann Arbor, MI 5/92 - 9/95

* Maintain both development and 24x7 production environments, consisting of VMS and assorted Unix systems
* Develop and tune in-house utilities, improving their performance and postponing the need for hardware upgrades
* Solve in-house user and programmer problems
* Analyze server loads to determine which machines need memory and disk upgrades

**Senior Programmer** KMS Fusion, Inc., Ann Arbor, MI 12/87 - 5/92

* Overhaul in-house process control software, reducing downtime and avoiding expensive equipment failures
* Maintain/develop data acquisition software to extend the life of existing systems and enable new kinds of experiments
* Develop software to radically improve the speed and accuracy of measurements previously done by hand
* Port image acquisition and analysis software from old, expensive hardware to a graphics workstation, adding an easy-to-use interface
* Convert an 'idle process killer' from VAX Macro to C, making it easier to modify
* Perform VMS and RSX system upgrades, field test OS and compiler software

**Systems Engineer** Electronic Data Systems, Troy, MI 5/85 - 12/87

* Write, debug and install an unattended real-time system supporting automatic guided vehicles
  + Handled 500 transactions per hour, 70+ vehicles per hour
  + Software was the interface between automatic guided vehicles running on the shop floor and the rest of the plant
  + Developed a multi-process approach to offload database updates, bringing the application within performance specifications.
* As part of a team converting a sales lead tracking system from an external data processing facility to in-house operation:
  + Devise a way to do bulk code changes, saving the team considerable time
  + Develop a library of FORTRAN routines to replace those used by the external DP facility