

Aaron Mavrinac

WORK EXPERIENCE

2006 - PRES. | **Research/Teaching Assistant, Sessional Instructor**
UNIVERSITY OF WINDSOR, Windsor, ON

Manage the Advanced Control Systems Laboratory. Assist in instruction of various undergraduate courses. Taught second year undergraduate course Digital Logic Design I.

2009 - PRES. | **Intern, Research & Development**
VISTA SOLUTIONS INC., Windsor, ON

Lead development of an innovative multi-camera range imaging solution. Funded through MITACS, OCE, and NSERC.

2005 - 2006 | **Simulation Programmer**
NEMAK OF CANADA, Windsor, ON

Developed a discrete-event simulation of a new casting assembly line. Advised the integration team on productivity issues.

2004 | **Electrical Engineering Assistant**
DATAREALM INC., Windsor, ON

Developed PLC logic and software to implement an updated standard of plant data collection for a major engine assembly line.

2003 - 2004 | **Electrical Engineering Co-op (Melt Dept.)**
NEMAK OF CANADA, Windsor, ON

Implemented various improvement projects involving industrial controls in a major casting assembly line.

2000 | **Support Developer**
NEXENT CORPORATION, Windsor, ON

Isolated and corrected bugs in several large software products in response to issues filed by the support team.

TECHNICAL SKILLS

General

Familiar with all major UNIX variants and Microsoft Windows. Strong background in GNU/Linux (Gentoo) system administration. Adept with Microsoft Office, OpenOffice, \LaTeX , Vim, GIMP.

Software Development

Expert in Python and C. Highly adept with C++, HTML/CSS, and various assembly languages. Adept with various libraries and frameworks (GLib, GTK+), development tools (Make, SCons, GNU Autotools), and version control software (Git, Subversion). Experienced in both industrial and open source development.

CAD, Simulation, Scientific

Adept with AutoCAD, ProModel, Matlab/Simulink, and various numerical and scientific libraries (ATLAS, GSL, NumPy, SciPy).

Industrial Controls & Machine Vision

Adept with various vision software libraries (HALCON, NI VDM, OpenCV). Strong PLC programming skills (Allen-Bradley, Siemens, Modicon). Experienced with SCADA, industrial robots (Mitsubishi, Fanuc, ABB), and various peripheral sensing and control devices.



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EDUCATION

2012 **Ph.D. Electrical & Computer Engineering**
(EXP) UNIVERSITY OF WINDSOR, Windsor, ON
Specialization: 3D and Multi-Camera Vision

2008 **M.A.Sc. Electrical & Computer Engineering**
UNIVERSITY OF WINDSOR, Windsor, ON

2005 **B.A.Sc. Electrical & Computer Engineering**
UNIVERSITY OF WINDSOR, Windsor, ON
Computer Option (Co-op)

2001 **Ontario Secondary School Diploma (OAC)**
HOLY NAMES HIGH SCHOOL, Windsor, ON

List of academic publications available upon request.

LANGUAGES

ENGLISH Native Speaker
FRENCH Fluent

PROFESSIONAL SOCIETIES

- Institute of Electrical and Electronics Engineers (IEEE)
 - IEEE Computer Society
 - IEEE Robotics and Automation Society
- Association for Computing Machinery (ACM)

ACTIVITIES AND INTERESTS

Research Interests

Camera networks, 3D computer vision, camera calibration, vision-based control, robotics.

Proficiencies

Digital logic design, computer architecture, operating system design, software engineering, computer vision, augmented reality, machine learning, robot modeling and control, computational geometry, simulation.

Open-Source Software

Developer for VPython and Thousand Parsec. Former SPARC architecture tester for Gentoo Linux. Maintainer of several smaller projects (e.g. Adolphus, FuzzPy). Participant in Google Summer of Code (student in 2008, mentor in 2009 and 2010).

Local Activities

Co-founder and administrator of Windsor UNIX Users Group. CouchSurfing City Ambassador for Windsor.