

# Charles G. Rush

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## Persistent Systems, LLC, New York, New York.

7/13 - Present

### **Director, Embedded Software Engineering**

1/23 – Present

- As the company grows, strategic project planning and execution has shifted from a single department manager to the senior engineers who helped get the product to where it is now. Have the same responsibilities as the Embedded Software Engineering Manager role plus increased autonomy and accountability.

### **Embedded Software Engineering Manager**

10/21 – 12/22

- Lead 9 person team that created new features, upgraded old ones, and fixed bugs in Linux kernel, Android, User Space, and Web Management Interface.
- Mentored and assisted in professional development of team members.
- Assisted Engineering V.P. with project planning and execution. Title changed in 2021 but had same duties since 2017.

### **Senior Embedded Software Engineer**

7/13 – 10/21

- Developed C++ code to implement Height Above Ellipsoid/MSL altitude calculations. Balanced resource requirements against accuracy.
- Developed and integrated configuration and status code for FLIR Recon III IR ranging binoculars.
- Found and fixed multiple bugs in tracker antenna positioning subsystem.
- Lead engineer on GPS subsystem. Modified and maintained open source gpsd package.
- Hunted down and fixed several nasty memory leaks, system crashes, and a long standing seg-fault in audio daemon.
- Initial user/debugger/enhancer for new, internally developed software for configuration and variable management with over 47,000 lines of multi-threaded C++. Found and fixed multiple bugs and added new features.

## SRC INC., Syracuse, New York

12/04 – 7/13

### **Multiple LSTAR, Zero Conflict, Ground Based Sense & Avoid Prototype System**

12/09 – 4/11

#### **Lead Software Engineer**

- This system, when it went live, enabled the first and only in the nation unattended night flights of an unmanned aircraft system.
- Responsible for all software for multiple radar and multiple PC air space monitoring system.
- Coordinated closely with customer on development of system requirements and ongoing development issues.

#### **LSTAR Radar Software Baseline Development Lead Software Engineer**

8/08 – 7/13

- Responsible for all aspects of LSTAR radar C++ software development on LCMR(V)2 and LCMR(V)3 hardware platforms.

#### **Software Group Team Lead**

6/07 – 7/13

- Responsible for performance evaluations, career development, and mentoring of six junior members of software group.
- As of 2015, three former team members are now software leads on their own projects.
- Helped several team members with issues preventing them from developing to their full potential.
- Responsible for training team members in software process and monitoring adherence to SRC ISO software process.
- Received consistently high reviews for leadership and mentoring ability.

#### **SOMISR II LN270 INU Based Motion Compensation Subsystem**

2/08 – 7/08

#### **TRES (Threat Radar Emitter Simulator) Lead Software Engineer**

5/05 – 3/08

#### **PAWSS (Persistent Area Warning & Surveillance System) Lead Software Engineer**

2/05 – 11/05

#### **MTES (Mobile Threat Emitter Simulator) Individual Contributor**

12/04 – 1/06

## InfiMed - Digital X-Ray Company

6/96 – 12/04

## UCHSC - Visible Human Project

1/92 – 6/96

## Akron Standard - Tire Uniformity Optimizers

7/87 - 11/91

## Firestone Tire - Tire Test Machines

6/86 - 5/87

## Ohio State University Institute of Polar Studies - Antarctica

11/85 - 2/86

## EDUCATION

M.S.C.S., College of Engineering and Applied Science, University of Colorado. GPA 3.97

12/93

B.S. in Computer Science, Department of Engineering, Ohio State University.

12/85