

# Charles G. Rush

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

7/13 - Present

### **Embedded Software Engineering Manager**

10/21 - Present

- 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.
- Modified open source software for iperf, a network performance tool. Increased reliability and robustness.
- Lead engineer on GPS subsystem. Modified and maintained open source gpsd package.
- Hunted down and fixed several nasty memory leaks and system crashes.
- Found and fixed long standing segmentation fault in audio daemon.
- Initial user/debugger/enhancer for new, internally developed software for configuration, variable management, and embedded API 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 Inc. 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) Individual Contributor (5/2005 -6/2006)**

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