# Charles G. Rush-

110 Wayne Ave, White Plains, New York 10606 charlesgrush.com

315-720-6530 chuck.rush.86@gmail.com

# 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

12/93

12/85

- · 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 TRES (Threat Radar Emitter Simulator) Individual Contributor (5/2005 -6/2006) PAWSS (Persistent Area Warning & Surveillance System) Lead Software Engineer MTES (Mobile Threat Emitter Simulator) Individual Contributor	2/08 - 7/08 5/05 - 3/08 2/05 - 11/05 12/04 - 1/06
InfiMed - Digital X-Ray Company	6/96 - 12/04
<u>UCHSC - Visible Human Project</u>	1/92 - 6/96
Akron Standard - Tire Uniformity Optimizers	7/87 - 11/91
<u>Firestone Tire - Tire Test Machines</u>	6/86 - 5/87

### **EDUCATION**

M.S.C.S., College of Engineering and Applied Science, University of Colorado. GPA 3.97 B.S. in Computer Science, Department of Engineering, Ohio State University.