

# Fred Eisele

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**TECHNICAL SKILLS** Language: Java, Clojure, Python, C/C++, XML, XSLT, Antlr, SQL, PERL  
Platform: Netbeans, Eclipse, VisualStudio, IntelliJ, LightTable  
Operating Systems: Microsoft Windows 7, GNU/Debian Linux

**PROJECT SKILLS** Production level architecture and API design  
Development of complex middleware for mobile and ad-hoc networks  
Rapid data-centric and model-based parallel application development architectures  
Project management and technical project leadership  
Database schema design and administration  
Distributed programming and algorithms

**EDUCATION** MS Computer Science, Vanderbilt Univ. in-progress  
BS Mechanical Engineering, Mich Tech Univ, 1982

**EXPERIENCE**  
Senior Staff Engineer  
Vanderbilt ISIS  
2007 – Present  
Advanced Vehicle Make : DARPA  
Implementing elements of a collaborative product assembly design frame. This includes a geometric linkage assembler and adapters for open-source and proprietary CAD packages. The distribution mechanism is speculative and asynchronous.

Android Mobile Middleware (Transformative Applications) : DARPA  
Developed opportunistic speculative data distribution middleware for Android.  
Developed rapid prototyping mechanism for parallel prototyping of user experience and data distribution services. This system employed code generation of data-store, distribution policy, and a reference user interface, from models.

User Interface Validation with Rapid Prototyping (Future Combat Systems) : ARMY  
Developed a layout manager service, a layout browser, and custom widgets.  
Developed a custom map widget supporting mil-spec symbology. In that widget developed a set of gestures for generating mil-spec symbols on touch screens.  
Developed a custom widget for live streaming of camera feed suitable for robotic control. Developed a custom 3D widget for viewing simulated vehicle movement.

Project Coordinator  
General Motors Research  
2006-2007  
Conducted research in advanced temporal data mining algorithms. Ported and adapted algorithms into multiple engineering environments. Contributed to technology improving clarity, stability, and scalability of the data prospecting products.

Chief Developer  
Netarx  
1998 – 2006  
Researched and applied technologies to the development of the Remote Network Monitoring Management System (RNMS), including: XML-based technologies (XSLT, XML Schema) for network protocols, system control, and archival storage of network data. Developed statistical techniques for discovery and tracking of “interesting” phenomenon. Developed Project Management Processes and Delivery Techniques incorporating RNMS with customer and technical/service personnel.

Engineering  
Software Developer  
GM/EDS  
1986 – 2000  
Die Casting Analysis System  
Manufacturing Process Analysis System used in reducing scrap rates in large complex castings, saving the company millions of dollars.

Sunrayce '93'  
Targeting Public Relations and Recruiting by providing Engineering and Logistics Services to multiple University and Company Teams.

REFERENCES AVAILABLE UPON REQUEST