Fred Eisele

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TECHNICAL SKILLS

Build Tools: Maven, Ant, Git, Leiningen, Subversion
Languages: Java, Clojure, Python, C/C++, XML, Antlr, SQL, Perl, JavaScript
Platforms: Netbeans, Eclipse, VisualStudio, Intellij, LightTable
OS & VM: Microsoft Windows 7, GNU/Debian Linux, Android, JVM, node.js

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 University. 2015 expected
BS Mechanical Engineering, Michigan Technological University, 1982

EXPERIENCE

Senior Staff Engineer
Vanderbilt ISIS
2007 – Present

Advanced Vehicle Make : DARPA
Currently implementing elements of a collaborative product assembly design framework. This includes a geometric linkage assembler and adapters for open-source and proprietary CAD packages. The distribution mechanism is speculative and asynchronous, using 0mq, Netty and protocol buffers.

Android Mobile Middleware (Transformative Applications) : DARPA
Developed opportunistic speculative data distribution middleware for Android. Developed rapid prototyping mechanism for 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. Examples of custom widgets are: a custom map widget supporting mil-std 2525b symbology, which included development of a set of gestures for generating mil-std symbols on touch screens; a custom widget for live streaming of camera feed suitable for robotic control; and a custom 3D widget for viewing simulated vehicle movement.

Project Coordinator
General Motors Research
2006-2007

Mining the Neural Code
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. Discovered and characterized neuron circuits developing in-vitro.

Chief Developer
Netarx
1998 – 2006

Network Monitoring and Management System
Researched and applied technologies to the development of a remote network monitoring and management system, including: XML-based technologies for network protocols, system control, and archival storage of network data. Developed statistical techniques for discovery and tracking of anomalous network and server phenomena. Developed project management processes and delivery techniques incorporating asynchronous dispatching to 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, reducing scrap rates and saving the company millions of dollars.

Sunrayce '93
Supported corporate public relations and recruiting by providing engineering and logistics services to university and company teams.

REFERENCES AVAILABLE UPON REQUEST