

Aaron M. Hosford

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[Website](#) | [GitHub](#) | [HTML Resume](#) | [PDF Resume](#) | [LinkedIn](#)

Introduction

I am a highly creative and impassioned autodidact with an incisive vision and strong problem solving skills. This is coupled with the drive and pragmatism required to turn big ideas into down-to-earth solutions. I am looking for an opportunity to put my considerable talents and decades of experience to good use, with the goal of making lasting contributions to the field of machine learning.

Accomplishments

- *National Merit Scholar* winner with full scholarship to the University of Texas at Dallas.
 - Author and maintainer of the open-source [XCS](#) Python library, an object-oriented implementation of the eponymous XCS machine learning algorithm.
 - Inventor of numerous proprietary machine learning algorithms, including work with deep learning, genetic programming, and reinforcement learning.
 - Architect of a proprietary natural language and artificial intelligence system for open-ended reasoning and conversation. (work in progress)
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Relevant Experience

AI Developer

Insight Global, Plano, TX - 2017 to current

Part of a small team of experts in machine learning and natural language processing, tasked with research and development for the conversational engine used by a customer-facing chat bot for a major US bank. Designed, trained, and evaluated multiple deep learning models for natural language intent

detection. Gathered and cleaned data, engineered features, and performed error analysis. Built bespoke heuristic/rule-based systems for entity extraction.

Key Accomplishments

- Contributed to the initial public release and continuing support of a banking chat bot used by millions of customers of a major bank.

Lead Systems Architect

Ericsson, Plano, TX - 2014 to 2017

Led a kanban team in an agile environment, along with other senior developer responsibilities. Maintained libraries, performed code reviews, utilized delinting to ensure code quality, participated in paired programming sessions, managed Git source control repositories, and other day-to-day development activities.

Trained and led an overseas team of Python developers.

Key Accomplishments

- Designed and built multiple automated predictive analytics pipelines using machine learning algorithms (including deep learning, market basket analysis, time series analysis, etc.) to optimize business decisions and processes.
- Architected and developed [attila](#), an open-sourced Python business automation framework.

Programmer/Software Analyst

West Asset Management (now Alorica), Sherman, TX - 2006-2014

Designed and implemented business process automations, including ETL, reporting, and client systems automation. Performed client requirements analyses, involving direct interaction with technical and non-technical client personnel. Reviewed and tested other programmers' designs, code, and documentation. Trained and assisted fellow team members.

Key Accomplishments

- End-to-end design, implementation, and automation of \$50,000,000+ new and existing client-facing financial and account data interfaces.
- Conception, design, and coding of extensive contributions to CommonUtilities, the in-house business automation library.

Software Engineer

Ericsson, Richardson, TX - 1998-2001

Coded network traffic simulations using the OPNET network traffic simulation engine. Worked with C, C++, Lisp, HTML, SGML, Perl (CGI), and Javascript.

Education

Dual major, Computer Science and Mathematics, 1997 to 2001

University of Texas at Dallas, Richardson, Texas

Autodidact and Machine Learning/AI Enthusiast, 1990 to current

Over 25 years of focused self-learning, practice, and experimentation