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Top Skills

ChatGPT
JavaScript
Software Development

Certifications

SAS Color Graphics
Learning Python
Learning Python and Django
Programming Foundations: Real-World Examples
Design the Web: Creating CSS-Only Navigation Menus

Arch Brooks

CEO / Software Engineer at Brooks Computing Systems LLC
Jacksonville, Florida, United States

Summary

I have authored complex scientific applications written in FORTRAN across not less than five decades.

Certified to write computer software (FORTRAN) in the construction, operation and maintenance of Nuclear Fueled Power Plants in the U. S..

Generally accepted as a subject matter expert for heating and cooling facilities for Nuclear Fueled Power generating facilities. I authored the first automated heating and cooling coil sizing program written in FORTRAN. The resulting automated system allowed Nuclear engineers to determine the response of heating and cooling facilities for a Nuclear Generating Power Facility prior to construction of said nuclear power plant.

In addition to the scientific revelation in determining the heat transfer factor (K factor) by measuring air friction in inches of water the response of every possible combination heating and cooling coils and the response spectrum plotted in graphs. The weather for continental U. S. was also incorporated into the automated system and determining how much ethylene glycol to utilize in the proper amount of antifreeze in cooler climates.

Tput and Tget assembly language macros were used for full screen data entry.

Finally IBM's Dialog Management Facility (DMF) allowed for full screen panels as well as automation hooks for every mainframe application.

While serving as a systems programmer I have had occasions recently to write and test custom SVC's in the installation of third party proprietary software such as CA, Boole and Babbage as well as others.

Currently the Open Source CodeBlocks IDE handles numerous versions of FORTRAN applications. FORTRAN is a very old friend of mine.

I have recently completed two projects using IDMS and FORTRAN. My contract includes a non disclosure for both companies. I am including a synopsis of available IDMS functions that would cover most of the activities for project completion. <https://idms-training.com/idms-review/>

I have my own LPAR from IBM that gives me cart Blanche for everything available in z/OS. Attached is an e mail from IBM that verifies my mainframe usage is current. [https://archbrooks.us/pdf/2023 general price harmonization update.pdf](https://archbrooks.us/pdf/2023%20general%20price%20harmonization%20update.pdf)

Experience

Brooks Computing Systems

CEO / Software Engineer

October 1991 - Present (31 years 11 months)

Jacksonville, Florida, United States

Brooks Computing Systems creates software applications for scientific and business solutions. Duties include but are not limited to developed legacy and agile technologies, design of mobile-ready applications which securely access corporate repositories.

Mainframe technologies such as z/OS as well as others mainframe OS's are supported. Numerous mainframe platforms are fully operational including Customer Information Control System (CICS). Dialog management facility mastery is available for the Time Sharing Orion (TSO) and Integrated Structured Programming Facility (ISPF). Most of the languages supporting ISPF are also readily available.

Multiple popular Relational Database Management Systems (RDBMS) are also available as part of the end deliverable solution.

Languages include c++, Delphi, FORTRAN, COBOL, Java and JavaFX.

United States Department of Defense
Computer Specialist
April 1980 - October 1991 (11 years 7 months)
Alexandria, VA

Served as Systems Programmer installing and maintaining multiple proprietary software systems.

Traveled with management review team for performance and capacity planning for very large machines (VLM).

Certified Statistician per the Statistical Analysis Systems (SAS), Cary NC as proficient in advanced report writing and advanced graphics.

Facilitated the implementation of the COBOL compiler validation project per DOD specifications using the Navy validation software systems.

Languages include c++, Delphi, FORTRAN, COBOL, Java and JavaFX.

Trans World Airlines (TWA)
Technical Programmer
April 1976 - April 1980 (4 years 1 month)
Kansas City, Missouri Area

Served as lead technician for the computerized flight planning system for all flight equipment flown by TWA.

Maintained Crew Administration and Management Systems which staffed all flights flown by TWA for a month in advance domestically.

Authored the International Crew Administration and Management System for all TWA flights flown internationally for a month in advance.

Provided maintenance for the Programmed Airline Reservation System (PARS).

Black & Veatch
Scientific Engineering Programmer
April 1973 - April 1976 (3 years 1 month)
Overland Park, KS

Certified to author computer software in the construction, operation and maintenance of nuclear fueled power plants (per U. S. Nuclear Regulatory

Commission and Black and Veatch Quality Assurance and Quality Control Program).

Languages include c++, Delphi, FORTRAN, COBOL, Java and JavaFX.

Authored the coil sizing program that allowed engineers to determine heat transfer factors for heating and cooling facilities of Nuclear Fueled Power Plants in the United States prior to construction.

Maintained electrical raceway software used in fossil fueled power generating facilities.

Authored Project Billing and Management System for all Black and Veatch projects.

Education

University of Missouri-Columbia

Music Education · (1970 - 1973)