James Hinds, MA Computer Science

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Seeking a position such as

COMPUTER SCIENCE

INSTRUCTOR / ASSOCIATE / ONLINE FACULTY

Using the following experience and achievements:

Over 10 Years University & College Experience Teaching 1,000+ Students
Providing Computer Science, Programming & Web Site Development Instruction
Also Co-Authoring Book on Computer Architecture & Programming
Providing Instruction on Computer Architecture, Basic Programming, Pascal, FORTRAN & CDC 6400 Programming
Teaching Undergraduate Computer Familiarization Class Required for all Students in Sciences Programs
Teaching Students How To Create Fully Functional Websites with Ability to Edit Personal & Business Content
Providing Remedial Instruction to High-Risk Population for GED Preparation
Teaching Additional Course on Self-Publishing Techniques for Authors

Possessing Over 20 Years Industry Experience as a
Senior Architect Consultant, Senior Programmer & Senior Firmware Engineer
Developing Software Complying with NASA Contract Requirements for Scientific Astronomical Imaging Device
Architecting, Developing & Documenting Software using UML Techniques – Accepted without Modification
Specifying, Configuring & Administering 7 UNIX Systems for Software Development
Designing Segmenting Technique Enabling Faster Downloads & Modular Programming
Inventing, Designing & Installing Technology Resulting in New Verifone Market
Developing & Administering Multiple Web Sites using Open Source Applications
Designing Real-Time Inventory Control System

Possessing Extensive Web-Based Application, Software Planning/Architecture
Web Scripting Techniques, Database Technologies, UNIX & System Administration
Domain Name Service, Internetworking Protocols including:
Object Oriented Analysis & Design Processing from Vague Input to Specifications, Design, Implementation, Testing & Maintenance; Adept with Modern Web Based Application Design Strategies (Model-View-Controller Systems implemented with PHP or other Scripting Languages); MySQL Backend; TCL/TK; C, C++, Java; Python, Ruby, Perl, Objective C, C#; Highly Skilled in System Administration (Installation, Maintenance, Upgrade); Unix & Network Administration (Mac OSX, Linux, BSD Unix); TCPIP Internetworking Protocols; SMB: File Access Protocol Windows 95/98; DNS: Domain Name Service; HTTP: Network Hypertext Servers, Documents & Access; APACHE: Web Server; MySQL, SQL; ASTERIX: Telephone Switching. TEX: including LaTEX.

Kapiolani Community College 2008-Present

WEB SITE DEVELOPMENT – COLLEGE INSTRUCTOR

INSTRUCTOR - WEB SITE DEVELOPMENT – Conduct workshop in development and set up of a web site using WordPress that covers basic changes that Web technology has made in the last 10 years. Course encompasses steps to create a fully operational domain for personal or small business use. At end of each 4-hour workshop students have created a fully operational site with the ability to modify with personal or business content. Provide instruction for 8-14 students per class. Structure of course can be viewed at: http://web2.0training.com/. Also teach an additional course on self publishing techniques for authors.

Over 10 Years Combined Experience
SUNY / Buffalo, University of Utah, University of California at Santa Barbara
Community College in Santa Barbara

CO-AUTHOR 'INTERPRETING MACHINES'

COMPUTER PROGRAMMING & VIRTUAL ARCHITECTURE

UNIVERSITY & COLLEGE LEVEL INSTRUCTION

CO-AUTHORED 'INTERPRETING MACHINES' … Lectured on Computer Architecture – Organized and presented talks on architecture of Burroughs B-1700 computer system; and presented to Youhan Chu and colleagues at University of Maryland. Talks were incorporated into book, Interpreting Machines' co-authored with Elliott Organick. Co-authored 'Interpreting Machines: Architecture and Programming of the B1700, B1800 Series' Elsevier/North Holland Publishing.

UNIVERSITY & COLLEGE LEVEL INSTRUCTION - continued

PASCAL, FORTRAN & CDC 6400 PROGRAMMING – Provided instruction as a Course assistant for programming courses including: Pascal, Fortran and CDC 6400 Assembler languages. Duties included grading and one-on-one tutoring of undergraduate students completing Computer Science courses.

COMPUTER FAMILIARIZATION – Taught undergraduate students in Computer Familiarization Class required for all students in the Sciences with 40-70 students per class; instructed approximately 540 students.

BASIC COMPUTER PROGRAMMING– Taught Basic Computer Architecture and Introductory Programming of up to 25 students per class; instructed approximately 180 students.

Waipahu Adult Education, Dept of Education, Hawaii 4/2008-Present
GED PREP INSTRUCTOR

GED INSTRUCTION – Instruct two courses within the Hawala Medium Security Prison: Pre-GED reading course and Pre-GED Mathematics class. Have provided instruction for 20 inmates.

The Great Dodecahedron, Inc. 5/01-Present
SOFTWARE ARCHITECT CONSULTANT / PRESIDENT

LEAD ARCHITECT FOR GEMINI/NASA PROJECT … UML Design Passed Acceptance on 1st Test – Lead Software Architect for NICI, a scientific instrument/astronomical imaging device for Mauna Kea Infrared, Inc. (www.mkir.com), built for the GEMINI astronomical consortium. Product images planets orbiting non-solar starts. Architected, developed and documented software in compliance with NASA guidelines and passed customer acceptance on 1st test. Developed and documented design using UML techniques which was accepted without modification; demonstrated strong ability to translate highly technical jargon into everyday language non-technical, senior decision makers can understand.

> **Web-Based Applications … Open Source, UML Design, OO, M-V-C** – Develop and administer multiple sites using Open Source applications: Apache, Linux/Mac OSX, PHP, MySQL (Python & Ruby). Designed and specified database for recording prisoner emotional responses. Designed a real-time inventory control system for monitoring the alcohol purchases for bars in night clubs. Both applications required UML design techniques and modern Object Oriented (OO) and Event driven structure. All of these Web based systems are M-V-C (Model View Controller).

STI, Inc. (Hyperspectral Imaging Firm) 2/00-4/01
SENIOR PROGRAMMER

REDESIGNED & IMPLEMENTED … Remote Sensing Hyperspectral Imaging System – Redesigned and re-implemented remote sensing hyperspectral imaging system (LASH project) to capture and analyze visual images in real time to detect fields of interest. Gear acquired in-flight images from aircraft wing pod and sent data into fuselage for operator control. Project was challenging as software was originally designed for non-realtime use as test-bed for scientific and mathematical ideas.   Successfully identified and removed project bottlenecks, cut wasted machine time, and tuned computation.

Verifone, Inc. (Transaction Automation Firm) 1/89-7/98
SENIOR FIRMWARE ENGINEER

UNIX SYSTEMS CONFIGURATION & ADMINISTRATION … Designed Firmware for Zilog Controller – Specified, configured and administered 7 UNIX systems for software development. Designed firmware for Zilog Z89323 based peripheral controller. Design simultaneously decoded three tracks of magnetically coded information and other tasks in real time.

> **Designed Segmenting Technique … Enabling Faster Downloads & Modular Programming** – Designed and implemented program segmenting technique to allow faster downloads and modular programming for Verifone's TXO terminals.

> **Invented, Designed & Implemented Multitasking Application** – Invented, designed and implemented application level multitasking for Verifone's TXO+ product (Omni 480 and Omni 490).

> **Invented, Designed & Installed … Technology that Resulted in New Verifone Market** – Invented, designed Upgraded, installed and maintained Amsterdam Compiler Kit, a 50 megabyte package of tools for multiple machine targets for C, BASIC, and PASCAL. Technology enabled Verifone to create new market for transaction terminals programmed in industry standard C language. Enhanced ACK tools to achieve 40% boost in code compaction and 20% boost in execution speed of the ACK interpretive machine for Z80 and M68000. Lead development of Z8 print mechanism controller for Tranz 420 portable terminal.

ADDITIONAL EMPLOYMENT

SENIOR SYSTEM PROGRAMMER, *Quotron 7/89-12/89 –* Implemented, specified, coded and assisted in upgrades to Quotron's central hub computing facility**.**

MEMBER-TECHNICAL STAFF, *Quest Analysis 4/96-7/89 –* Firm specialized in computer architecture research. Invented algorithm to analyze and display the flow of control of computer microcode. Invented a programming language to automate version recognition and patching of computer code. Designed and built hardware and associated software to allow a PC to monitor and control remote mainframe computer.

SYSTEM PROGRAMMER, *Monogra 6/85-3/86 –* Invented algorithm and tools for high-speed decompression of data for publisher of *Dollars and Sense Accounting Software*. Analyzed operation of UCSD PASCAL system to allow compilation of very large modules within small memory constraints. Designed and implemented modules for smart diskette assignment to find information by content. Organized product release source code library management system. Designed and implemented modular modem and telecommunication drivers for home banking product.

CHIEF DESIGNER & PRESIDENT, *Stellation Two, Inc. 1/80-6/85 –* invented, designed and produced *THE MILL* and *Vitamill* coprocessor circuit boards for Apple // computers for this manufacturer of hardware and publisher of software for Apple // Computers. Products were specifically designed to speed up the operation of the Apple // computers. Provided technical direction and aftermarket support for customer base of 4000 users. Managed office, marketing, sales and production employees. Qualified, contracted, supervised, and motivated contract programmers. Designed and specified system and application software. -The *PASCAL Speed Up* software. a performance booster. The high speed disk cache *Invisible Optimizer*.

LECTURER – COMPUTER PROGRAMMING, *Santa Barbara Community College 9/80-5/82 –* Lecturer for entry-level Computer Programming and technology courses. Topics included computer organization and elementary programming.

CHIEF SYSTEMS PROGRAMMER, *Nestar Systems Inc. 7/78-1/80 –* Designed and implemented software for schoolroom computer networking system, Nestar was the very first maker of Local Area Networks of low cost computers**.**

LECTURER – COMPUTER PROGRAMMING, *University of California Santa Barbara 9/75-5/77 –*   Lecturer for entry-level Computer Programming and technology courses for the Electrical Engineering department. Topics covered were machine logic, architecture and elementary programming skills.

SYSTEMS PROGRAMMER, *Burroughs Corporation 7/74-6/78 –* Adapted Per Brinch Hansen's Concurrent PASCAL System (a precursor of MODULA) for use in an operators console front panel for business mainframes. Implemented real-time system kernel and p-code interpreter. Taught and motivated other team members and managers on how to use this pioneering CASE technology based on flow of data. These efforts reduced the design and implementation time of the project by an estimated 300%. Created a system for the Burroughs B1700 to execute IBM 1130 programs directly. This effort allowed Burroughs to sell their computer equipment to replace the IBM computer.

EDUCATION

Master of Arts – Computer Science, State University of New York at Buffalo
Bachelor of Science – Computer Science, Oregon State University
Master Practitioner in Neuro-Linguistic Programming, ABNLP
Trainer of Neuro-Linguistic Programming, ABNLP

PROFESSIONAL MEMBERSHIPS

Neurobiological Learning Society
Presenter & Member of Jury to Select Best Paper Presented to Society During the Last Year

PUBLICATIONS, REFEREED ARTICLES & BOOKS

An Algorithm for Locating Adjacent Storage Blocks in the Buddy System
Communications of the ACM, April 1975. Volume 18, No 4

A Fast Technique for Constant Divisors
Communications of the ACM, February 1976, Volume 19. No 2
(Co-authored with Drs. Ehud Artzy and Harry Saal.)

Interpreting Machines: (subtitled) Architecture and Programming of the B1700/B1800 Series:
Elsevier/North Holland Publishing. March 1978. (Co-authored with Elliott Organick)