Steven Fitzgerald

Professor

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Objective

To join, and to become an essential member of, a team; a team that integrates forward-thinking technologies, produces innovative solutions to complex problems, and encourages continual improvement.

Career Summary

I have a quiet passion and enthusiasm for building teams. I have demonstrated this ability within academia and within industry. Every member of the team is encouraged to manage up, to mentor out, and to leverage each other's unique talents and experiences to move objectives forward.

Consequently, I have a solid reputation for delivering and achieving goals.

Most recently, I have focused my attention on developing the skill sets (both soft and hard) of emerging technologists, and I have used their curiosity to keep abreast of technology trends.

Professor of Computer Science   AUGUST 1994 - PRESENT
California State University, Northridge (CSUN)

Director   NOVEMBER 2013 - JUNE 2019
Matador Emerging Technology and Arts Laboratory, CSUN

Vice President, Technical Services   JANUARY 2010 - JANUARY 2013
Eucalyptus Systems, Inc.

Chief Technology Officer   JUNE 2001 - JANUARY 2007
California State University, Northridge (CSUN)

Recent Sandbox Projects

In Progress:

- Implementing a browser-based MIPS assembler/simulator using Vue.js
- Used "parsing expression grammars", via PEG.js, to implement a MIPS parser.
- Comparison between the ARM and MIPS instruction set.

Web Infrastructure:

- Performance evaluation of CGI to interface with Docker containers.
- Performance comparison between CGI, FastCGI, and SimpleSGI wire protocols.
- Implementation of netstring, FastCGI, and SimpleCGI in C.
- Examination of 'php-fpm's strategy for process management and FastCGI.
- Investigation of AWS lambda implementation, via xinetd and SimpleSGI.

Other:

- Design of a Class Search project to be implemented via VUE.
- Developed Bash Command Line Tools for GitHub Classroom grading support.
- Developed a binary-values package in JavaScript for real binary numbers.

Education

Doctor of Science, Computer Science   DECEMBER 1994
University of Massachusetts, Lowell

Professional Experience

Professor / Computer Science Department   8/1994 - PRESENT
California State University, Northridge

Current activities involve retrofitting the Department's freshman Computer Architecture course to make it more current and relevant:

- to leverage git for all assignments, projects, and class material
- to incorporate communication models, alongside computation models
- to expose students to practical encoding methods, e.g., base64, utf-8

Major activities involved curriculum development to align the Department's Computer Information Technology (CIT) major with the needs of industry and to incorporate new technologies.

- Redesign of "CIT 160: Internet Technologies"
  - to utilize docker containers
  - to emphasis the command-line interface and automation techniques
- Redesign of "CIT 384L Web Development and Hosting"
  - to infuse automate deployment of web infrastructure (docker/git)
  - to leverage various Apache modules within projects
- Redesign Senior Design for both CIT and COMP students
  - to incorporate Google Venture Sprints
  - to infuse Agile methodology
  - to adopt a DevOps approach with cross-discipline teams

Director / Matador Emerging Technology and Arts Laboratory   11/2013 - 6/2019
California State University, Northridge

Via the reorganization of three units within Academic Affairs, established the META+LAB to further support the University's student success priority. We modeled a high-tech startup company that provided hands-on experience to emerging technologies within an interdisciplinary environment.

Within 4 years, the META+LAB was transformed from a staff-centric to student-centric environment that continued to fulfill all its inherited responsibilities within its original budget, but with the additive benefits of accelerating student success and establishing a workforce development program.

- Developed META+LAB organizational structure utilizing student-based Agile teams with staff mentors.
- Primary Architect of our Web Services API: https://api.metalab.csun.edu
- Mentored team members in the development of web and mobile apps, which are still in use at CSUN:
  - Electronic Thesis and Dissertation

- - [Faculty Profiles, Scholarship, and Stories](#)
    - [CalStatePays](#) (based upon the Learn&Earn app)
    - [Upper Division Writing Proficiency Exam](#)
  - Mentored team members in IT Infrastructure maintenance
    - META+LAB was 100% responsible for its IT needs
    - On-premise virtualization environment
    - Cloud-based environment hosted at AWS
- Deployed and maintained production Tableau environment
- Established multi-disciplinary, campus-wide training programs
  - Adventures (high school internship at META+LAB)
  - Pathfinders (year-long training program)
  - Immersive (2-week bootcamp training program)
  - Senior Design Sprints (1-week Google Venture Sprint program)
  - Amazon web-services certification course

Vice President, Technical Services / Eucalyptus Systems   **1**/2010 - **1**/2013

- Built an integrated team from zero to 14 to serve three main company responsibilities:
  - Customer success and community support providing world-wide 24x7 coverage
  - Technological infrastructure and Community Cloud services
  - Web marketing activities, in coordination with marketing team
- Managed the Eucalyptus Customer and Eucalyptus Community clouds
- Developed the Customer Success Initiative with the VP, Prof. Services
- Established company policies and procedures regarding IT and business-related activities, including:
  - employee onboarding/termination processes
  - data center projects for engineering environments
  - aiding in the development of internal collaborative environments between customer success and engineering teams

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Chief Technology Officer / CSUN   6/2001 - 1/2007

- Advised both the CIO and other campus leaders to define and manage the IT infrastructure to meet the academic and business needs of the campus.
- Established priorities, via a consultative process, on policy development, organizational design, budget development, and staff hiring and supervision.
- Provided oversight and expertise in IT-related activities both within the IT Division and within individual colleges and business units.
- Directly responsible for:
  - IT standards and policies: development and implementation
  - Management of IT security and FISMA audits and findings
  - Directory Initiative for authentication via single sign-on (SSO) and for server and desktop computer management
  - Computer Security Incident Response Team (CSIRT)
  - Root Cause Analysis and Process Improvement