Alexander Fu

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Technical and Personal Skills

Proficient in:

- **Programming Languages:** ASM, C/C++, Java, Python, Ruby, Visual Basic
- **Scripting Languages:** bash, batch, PHP, R, sh, tcsh, VBScript
- **Parallel Libraries:** CUDA, Hadoop, OpenMP, OpenACC, Thrust
- **Web Languages:** Ajax, APEX, CSS, HTML, JavaScript, JQuery
- **Cloud Platforms:** AWS, Firebase, Heroku, SalesForce
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- **SQL Languages:** MySQL, Oracle SQL, PostgreSQL
- **Program Tools:** GDB, gprof, valgrind
- **Server Software:** Apache, Exchange, IIS
- **Industry Software Skills:** Adobe Creative Suite, Debugging, Git, JIRA, Matlab, Microsoft Office, SalesForce, Tableau, Windows, *nix
- **Other:** Patient, can explain difficult concepts well. Can write documented production-ready code. Knack for program optimization. Has perfect pitch and sense of humor.

Basic Experience in:

- C#, Google Cloud Compute, IDA Pro, Lisp, Lua, perl PowerShell, Prolog, Ruby, Scheme, Visual J#

Full-Stack Employment

rhoCode Consulting — **San Diego, CA**
Director — *August 2013 – Present*

Currently working for a consulting company that specializes in full-stack development. Job duties include offering primary support for SalesForce and Tableau Products, writing Spring MVC production code, and managing various Oracle databases.

Senomyx — **San Diego, CA**
Supply Chain & IT Intern — *June 2013 – August 2013*

Worked in an office environment and served as the proxy between the Supply Chain and IT departments. Created a fully-functional- query database within Excel using Visual Basic for Applications, so that monthly forecasts could be generated, saving the company over $50k per year to hire a full-time forecast analyst. Worked extensively with Big Data, parsing millions of rows of order and research data.

Frontend Employment

Static Studio Design — **San Diego, CA**
Web Application Designer — *March 2009 – June 2013*

I worked to create web sites and applications in HTML, PHP, and SQL. Created promotional websites for various well-known companies. Clientele includes San Diego Auto Shop, Keurig, and Dodge.

Frontend Employment Continued

- **Darkest Sun Studios** — **San Diego, CA**
  Web Graphics Designer — *January 2007 – May 2010*
  I designed artwork for clients in the general San Diego area. My main contribution to the company was a job tracking system created in python with a browser GUI to track the progress of individual jobs.

Backend Employment

- **Res-Ex** — **Davis, CA**
  Backend Application Developer — *May 2012 – June 2013*
  Created a website and companion server application to handle residential listing and searching for college students. Server was written in PHP and SQL, while the website was written in HTML, CSS, AJAX, and JS.
- **Evolution Controls** — **San Diego, CA**
  Server Technician — *March 2009 – June 2013*
  Primary support for production servers, which hosted everything from Exchange mail to website file-hosting services. I was also responsible for keeping the server secure and running smoothly.

Education

Academic Qualifications

- **University of California, Davis** — **Davis**
  4.0 CS GPA, University Honors Program — *2013 – Present*
- **University of California, Berkeley** — **Berkeley**
  4.0 GPA, Simultaneous Enrollment — *2013 – 2015*

Current Projects

- **Davis Computer Science Club Website** *'Club Administration Tools'*
  I am now the sole developer of the Davis Computer Science Club website (www.daviscsclub.org). Through this site, members can check into events, sign up for one-on-one tutoring, and administrate club resources and assets. The goal this year is to incorporate payment processors into the site directly to enable fund collection for various events, as well as the addition of new clubs (specifically targeting freshmen) to the website. Our most prominent feature is the tutoring system, which allows any student in the Computer Science building to find a qualified tutor to get the help they need.
- **Tutoring Club** *'Tutor Retention and Relationship Development'*
  After being elected as Tutoring Chair, the mission was to increase the tutor retention rate from quarter-to-quarter. Throughout last year, tutors have continued to tutor from quarter to quarter with an average probability of 56%. Getting this rate higher is important to the longevity of the club – otherwise we could face a lack of experienced tutors. Currently, the retention rate is 71% across the last two quarters. Additionally, we are working on tailoring special group tutoring events to help freshmen just starting out in Computer Science.
- **Independent Data Analysis** *'Working with Big Data'*
  After gathering gigabytes of data pertaining to tutored students (subjects tutored, time spent, repeat rate), I was able to analyze this data in order to better help the tutees. For example, the optimal times for tutors to be physically present have been calculated, improving our efficiency for finding tutor-tutee matches by over two hundred percent. I am continuing to analyze data in order to optimize the tutoring experience.

Interests and Extra-Curricular Activity

- I tutored other students in Computer Science starting from my first quarter at Davis. On average, I would tutor other students 1:1 for ten hours per week. I became the vice chair of the Computer Science Tutoring Club my junior year, and I will be the Tutoring Chair this coming school year. I really enjoy tutoring students, and helping someone through difficult concepts gives me a sense of achievement.
- Because of the tutoring position, I am also on the officer board of the Davis Computer Science Club. I regularly help plan activities, run fundraisers, and help out in club events.
- I am also a member of the UC Davis University Honors Program. Through this program, I take additional classes pertaining to my major, do community service and research, and will be doing a senior capstone project that has yet to be decided.
- Through my undergraduate years, I have become notorious for answering questions on class discussion boards (hosted by Piazza). If a course I was in had this public forum, I would always do the projects in advance and answer an overwhelming majority of questions. Usually I would average five to seven thousand posts, answering over three thousand questions, per class discussion board. To put it in perspective, the second highest post count would usually be only somewhere between three to four hundred. I prided myself on giving concise, informative answers that led the other students to the solution, rather than merely giving an answer with no explanation. For this service I received many recognitions from the professors and lectures of these classes, thanking me for my contributions.
- I am also an active contributor on GitHub and Bitbucket. A selection of the public projects I am working on can be viewed through the links below.
- In terms of sports, I regularly play tennis and swim, depending on the season. In addition to this, I enjoy biking around the Davis Bike Loop as well.
- After college, I am considering graduate school, and would really like to work in the research fields for quantum computing, program optimization or AI. I have a passion for teaching, so pursuing a teaching degree also interests me.

Links

- Github: https://github.com/tehalexf
- Bitbucket: https://bitbucket.org/tehalexf/
- Personal Site: http://alexfu.me

References

- Four references avaliable upon request.