
Daniel Chu

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CAREER OBJECTIVE

To continually reach towards a position that is of significant influence to future advancements of technology.

CORE TECHNICAL COMPETANCY

- Strong understanding of algorithms and efficient algorithm design.
- Strong C/C++ development experience in both embedded and non-embedded platforms.
- Experienced solution architect and has designed and maintained production systems with 24x7 uptime in the 50-100 TB scale.
- Commercial experience with a wide variety of other programming languages including Perl and Python.
- Strong PostgreSQL, Greenplum database experience acting both as DBA (database design, optimistaitons, maintenance and troubleshooting) as well as designing software systems for such databases.
- Experience with wide variety of NOSQL database solutions such as: Cassandra, memcache, Redis.
- Experience with multiple bug tracking and project management tools including JIRA, Mantis and MS Project.

ADDITIONAL SKILLS

- Project management and team lead experience including managing a team of 15+ people both in development and operations.
- Experience in hardware dimensioning and project design and planning of large-scale production environments.
- Experience in working in DevOps environment and running large teams maintaining and developing for currently running production systems.
- Experience with both Agile and traditional forms of software development process including scrum, waterfall, unit testing, and regression tests.
- Experience in research and software development, specialising in algorithm design
- Have good understanding of market microstructures and the operation of stock exchanges
- Good understanding of Finance, Economics and Accounting
- Commercial experience in mobile application development for both IOS and Android platforms.
- Experience with wide variety of programming languages including C, C++, Python and Java, Swift, Ruby, ObjectiveC.
- Detailed understanding of intellectual property including patent creation and infringement
- Good understanding of distributed systems including experience in setting up and design code to work on Grid engine environments and MPI based parallel processing software.
- Extensive experience in Windows and UNIX environments including programming, software and hardware administration
- Great Communication skills from extensive tutoring and regular teleconferences while representing Canon
- Experience multiple version control systems i.e. CVS, SVN, Git
- Bilingual: Can speak, read and write in English and Mandarin

QUALIFICATIONS

The University of Sydney

Bachelor of Computer Science and Technology (Hons.)

First Class Honours - Majors in:

- Principles of Computer and Networks
- System and Software Development

Macquarie University

Master of Business & Commerce

Major: Finance

Graduate Diploma in Business

PROFESSIONAL EXPERIENCE

Lingo Network

Senior Partner

2010 - 2015

Day to day management of company employees including task assignment, salary negotiations, performance reviews, regular updates. Take part in pre sales and other business development activities to maintain and expand the Lingo Network business. Work with the other partners in making strategic decisions and on the directions of the company.

Lead Consultant

2010 - 2015

Act as lead consultant to various Lingo clients including Ericsson Japan and Ericsson US. Demonstrate technology and skills leadership so client is more likely to hire additional Lingo consultants. Understand customer needs and offer solutions to problems and ways forward. Work initially as senior engineer / solution architect and later on as project manager in the customers tools team, overseen the customer team's growth from a team of 3 to team of 30+ people.

Specific Project Details:

- Help support existing telecommunications data analytics platform and extend functionality to support for additional telecommunication's nodes and features including GGSN, SGSN, SASN, SAPC support.
- Investigated and developed performance optimisations (both database and system wide) to improve system to support from 5TB to 100TB of data
- Developed prototype of using distributed database system and alternate caching mechanisms to improve system scalability and data processing performance. (Technologies used Redis, memcache, PostgreSQL, Perl).
- Designing training material and training of new users.
- Built up infrastructure and customer support teams as well as the development teams.
- Managed infrastructure migration and upgrade from local server room to dedicated data center including fully redundant systems and automation of configuration management.
- Manage project timeline, budget and future direction of the tools team, reporting to management.
- Designed process and tools for tiered customer support structure as well as SLAs and monitoring.
- Kick off and establish new projects and once basic structures have been setup, handover to other team members.

Capital Markets Cooperative Research Centre (CMCRC)

Technical Lead

2008 - 2010

Lead a software development team that conduct research and development of various stock market surveillance algorithms. Design/implementation and testing of various algorithmic trading strategies based on information flow. Interpret and convert various forms of market data to create the back testing environments. Oversight of design and implementation of custom workflow system and web based data verification system.

Conduct general management duties including project management; recruitment; budget management; goal setting for team members and conducting annual performance reviews.

Specific Project Details:

- Work with researchers to design and implement algorithms to detect cases of insider trading, marking the close and front running.
- Design and implement frame work for back testing trading strategies based on announcements
- Set up and maintain a database of historical intraday (quote level and orderbook) trading data for 25 stock markets.
- Design and implement C++ and python data conversion tools to convert historical data from various sources (Reuters, exchanges) to stored format.
- Work closely with SMARTS group and investigate various data storage technologies to improve SMARTS's underlying system.
- Set up the Sun Grid Engine and designed software to perform distributed data processing.

Canon Information Systems Research Australia (CiSRA)

Software Engineer, Print Rendering Technologies

2006 - 2008

Conduct research, design and product development of high performance rasterised image processing (RIP) systems. Perform patent creation and infringement prevention. Represent Canon in international standards committee.

Specific Project Details:

- Re-design and re-implementation of Canon's PPML interpreter upgrading existing prototype into a commercially viable product.
- Collaborate with development teams in Australia and Japan working on other modules of the system including defining requirements, interface design, code reviews.
- Work with developers from HP, Adobe and other members of PPML specifications committee on next version of the PPML specification.

University of Sydney

Research Associate, School of I.T.

2005 - 2006

Conduct research and development of high performance phylogenetic inference algorithms. Perform result analysis and publish findings for conferences and journals. Perform software development and systems administration of the department's computational grid.

Academic Staff, School of I.T.

2003 - 2006

Tutoring of postgraduate high performance computing course (nets4041), Tutoring of first and second year programming courses (soft1001, soft1002, and soft2004). Perform exam supervision, assignment and exam marking.

Helpdesk for School of I.T.

Jul - Nov 2004

Resolve problems existing students may encounter in assignments, programming, account access and hardware issues. Maintain and update existing school of I.T. helpdesk website.

REFEREES:

Provided up on request.