

LACHLAN FORD

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EXPERIENCE

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| Present | <p>Software Engineer Intern, <i>Microsoft</i>, Under <i>Kiran Dowluru</i>, kirand@microsoft.com</p> <ul style="list-style-type: none">· Currently holding this position. NDA |
| 2010 – Present | <p>Content Engineer, <i>Smart Sparrow</i>, Under <i>Zack Belinson</i>, zack@smartsparrow.com</p> <ul style="list-style-type: none">· Joined as the company was newly spawned from a research group at the University of New South Wales and have grown with it as it has transitioned from new startup with < 10 employees to an established intermediate company with over 40 employees and offices in Australia and the US. I have outlined notable achievements below.· Have worked to create many flash and HTML5 based educational simulations for various educational institutions including:<ul style="list-style-type: none">○ UNSW Medicine and Mechanical Engineering○ The Arizona State University “Habitable Worlds” online course○ Many more including Monash University, Open Universities Australia, Macquarie University and University of Tasmania· I played a major role in researching and developing methods in which to create content in HTML5 and convert content from flash to HTML5. As part of this I developed an HTML5 canvas game and rendering library for canvas, which had a similar API to flash.· Implemented a software renderer for a solar system simulation with dynamic lighting and shadows (planets shadowed others), which ran in-browser, on the iPad 1.· Have also contributed to the frontend and backend systems of the company’s main product, the Smart Sparrow Authoring Tool |
| 2013-2014 | <p>SDET Intern, <i>Microsoft</i>, Under <i>Kiran Dowluru</i>, kirand@microsoft.com</p> <ul style="list-style-type: none">· NDA |
| 2008 | <p>Developer, <i>Shift Interactive</i>, Under <i>Jamie Harbison</i></p> <ul style="list-style-type: none">· Created flash banner ads and worked on integrating a high score table into a flash based Facebook game |

EDUCATION

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|----------------|---|
| 2010 - Present | Bachelors of Computer Science with Honors, <i>University of New South Wales</i> |
| 2010 | Higher School Certificate, <i>Normanhurst Boys High School</i> |

SIDE PROJECTS AND OTHER ACHIEVEMENTS

GasTap www.gastapgames.net

GasTap is a small games studio started out of high school by a few friends and myself. We have participated in two game jams in the past (2012 and 2013 global game jams) We are currently developing two fully fledged games

- GasTap has provided us with many interesting problems to solve over the years including:
- Real time game networking code challenges.
- Rendering challenges such as stencil shadows.
- Collision detection challenges such as efficient real time polygon to polygon collision detection and response.
- Clustering algorithms for intelligent ship fleet AI. Web design, game design, and Software Engineering challenges.
- Human management challenges (motivation, organization, etc...)

Educational Achievements and Experience

2006: 3rd place in ACMI "Screen-It" competition for Game Development

2007: 2nd in Australian digital design competition for open animation

2009: Achieved distinction in AIO

2009: Attempted to visit every train station in Sydney in 24 hours ala TSP

2009: Obtained password for the Department of Education and Training North Sydney Region network

2009: Attended NCSS camp where I was the backend manager for a social networking site called "Facepalm", which we developed over the course of the week

2009: Participated in CompClub at UNSW, a social computing group run by tutors of UNSW. Worked on interesting projects such as a persistence of vision clock made from a hard drive and "pendguino" microprocessor, an FTIR touch display screen with air hockey game and genetic algorithms to generate walk cycles for box2D creatures.

2010: Designed and implemented schools prefect voting system with 2 schoolmates. This has since become the de facto standard project for final year software students

2010: Achieved distinction in the University of New South Wales programming competition, ProgComp

2010: Shortlisted for Art Express for my final year animation project

2012: In Microprocessors course, attained full marks in final game project by implementing multiplayer between 2 boards with hand rolled communication protocol.

2012: Implemented beacon tracking system for robotics using OpenCV

2013: Attained 96/100 in Algorithms and 95/100 in Advanced Algorithms

2013: Placed 6th in year based on raw marks

University Competitions

2014: Placed 3rd in the Cyber Security Challenge 2014 (run by Telstra and the Australian Government)

2014: Placed 4th in Sydney regional ACM

Other

I have contributed two npm modules for grunt (open source Javascript task runner). One for generating a manifest to aid in preloading of game assets, and another to enable preprocessor strings from grunt.

LANGUAGES, TOOLS AND SKILLS

- Versed in many languages and paradigms including: C, C++, C#, Java, Actionscript, Flex, Javascript (+ HTML 5 / CSS 3), Python, Haskell, SQL and of course brainfuck. Also have some experience with Erlang, Perl and Go.
- Familiar with various version control systems including SVN and Git, as well as various project management / development tools including thrift, maven, grunt, tomcat, maven, node, Jira, eclipse, visual studio, Adobe Flash/Photoshop/Illustrator/Flash Builder, Unity, OpenGL etc...
- Developed in Windows, Linux and OSX environments.

OTHER INTERESTS

- Parkour and rock climbing, playing competitive Smash Brothers, playing music on violin, piano and guitar, and making digital art/animation.

REFERENCES

- 404, for now