

# Justin Burns

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**Email:** [justin@olymega.org](mailto:justin@olymega.org)

**Address:** 7617 Alice Ct. SE  
Olympia, WA 98503

## /dev/skills:

- **Programming Polyglot**
  - C#, ASP.NET, MVC
  - JavaScript, jQuery
  - Transact-SQL
  - Perl, PHP
  - C, C+, Objective C
  - (And More...)
- **Eclectic Software Architect**
  - Object-Oriented Design
  - Model-View-Controller (MVC)
  - Test-Driven Development
  - Domain Driven Development
  - Agile Software / SCRUM
- **Passionate Community Leader**
  - Makerspace Co-Founder and Leader
  - Contributor to many OSS projects
  - Dynamic and enthusiastic educator, coach, and public speaker.

## /dev/experience:

**Lead Developer/Architect, Scientific Information Systems**, Department of Ecology (ITS 5, Step J, ~\$73k)  
*September 2012 – Present*

**Duties:** As a senior developer/architect, responsible for the design and support of mission critical agency applications. Researched and planned agency migration to TFS2012. Trained and mentored other developers on the effective use of agile development and Scrum.

**Senior Developer, ITS4**, Office of the Attorney General  
*March 2007 – September 2012*

**Duties:** C#/.NET Development, SQL Server Development, Agile Software Design, Systems Administration, General Troubleshooting, Test Automation, Project Scoping/Implementation, Training and Mentoring developers in Agile and Scrum.

**Software Design Engineer In Test**  
Microsoft (via Volt Technical Services)  
*June 2006 – March 2007*

**Duties:** Created test automation software for Windows Firewall – developed complex, scriptable network clients, integrated with existing test infrastructure.

*\* Prior work history is available on request.*

## /etc

### Co-Founder, Instructor, and Organizer for “Olympia Makers, Engineers, Geeks and Artists”

OlyMEGA is a nonprofit Makerspace that operates a shared workshop and meeting space in Olympia, for the purpose of fostering creative collaboration between members. It also hosts classes and workshops on a variety of topics ranging from Programming and Robotics to Woodworking, Resin Casting, and Sewing.

#### Relevant Experience:

- Forming and operating a membership-driven nonprofit organization.
- Delegating complex tasks and ensuring completion, often with minimal face-to-face contact.
- Developing and presenting educational material in a classroom setting.
- Developing and leading hands-on workshops.

***Mr. Cockrill,***

**My name is Justin Burns, and I'm not your average developer.**

I possess a combination of skill, talent, and passion not often found in state government - or elsewhere - that I believe makes me the Solutions Architect you've been looking for.

Let's tackle the elephant in the room right away - I don't have a CS degree, something listed as a Capital-R Requirement for this position. I can and will demonstrate why this shouldn't concern you in the least - I bring a wealth of skills, passion, and knowledge to the table that make me a clear choice for this position.

First, an explanation for the lack of a CS degree: Shortly after beginning work on my degree in the late 90's, my skills had reached a point where I could command a salary that was pretty staggering to someone my age. I jumped at this opportunity, relocating to San Francisco, and later Seattle, riding the ebb and flow of the Dotcom era and beyond. Regretfully, I never returned to complete my degree. It turns out that for a talented developer, this isn't nearly the impediment you would expect.

Now, with those explanations out of the way, I'd like to share a bit more about my path leading up to now.

I've known since an early age that I had an aptitude for programming. I got my first computer (C64) when I was 6. By the time I was 7 I'd beaten the few games I owned, gotten bored, and starting poking around with BASIC. By middle school I was writing ASCII adventure games in QBASIC, and D&D character sheet generators in VB4.

Since my early teens, I've pursued topics that would normally be covered by a CS degree. I'm happy to provide clear explanations and demonstrate practical knowledge on a wide variety of hardware and software topics. I don't claim to know every little detail, and there are certainly some gaps in my knowledge that I'm not even aware of. However, I can give a clear and reasonably thorough explanation of the operation of modern hardware, from Transistors to Smartphones, as well as modern software, from Logic Gates to Facebook.

At the same time as I was studying these fundamental concepts, I was also reading books like "Clean Code", "The Pragmatic Programmer", and classics like "Code Complete", "Design Patterns", and "Refactoring". As a result, I hold myself to very high standards when it comes to writing clean, elegant, and expressive code. I also believe strongly in the value of automated testing a way to create truly maintainable and reliable software. I've written thousands of unit tests, and developed several applications using a fully Test-Driven approach.

My professional career has been an interesting one - at various points in my career I've been: Tech Support, Web Developer, Application Developer, U-Haul Guy, Independent Contractor, System Admin (Solaris, Linux, Mac OS X, and Windows), and an SDET, before joining state service as an ITS4 with the Office of the Attorney General.

My decision to join state service after years in the private sector had many factors: a newly started family, a general distaste for commutes and traffic, and the desire for a job with a work:life ratio that would allow me to pursue my many avocations (like starting a Makerspace, or building a giant iPhone). It didn't hurt that the AGO had a small but excellent group of developers who were eager to learn and practice Scrum, and enthusiastic about learning and using modern development practices and technologies.

At the AGO I became a certified ScrumMaster, and was the driver/evangelist/trainer (as well as a developer and team member) for our agile transition. I used my skills to investigate, evaluate, and help the team adopt modern best practices. These included Automated Testing, SOLID principles, Code Style guidelines, and modern Database standards. I also encouraged (and saw the adoption of) a whole alphabet soup of technologies, most notably the use of IOC (inversion-of-control) containers, ORM (object-relational-mapping) frameworks, an end to development of desktop applications, and the transitioning of new web development from ASP.NET WebForms to ASP.NET MVC. During the last year or two at the AGO, I became increasingly involved in developing “Proof of Value” systems to aid executives in strategic planning, or to rapidly deliver a solution to meet a pressing need.

8 months ago, largely out of a desire to further my career, I made the move to Ecology. On paper, the job had more responsibility and more latitude than my previous position, but in practice this wasn't the case. I had the goal of bringing about the same kind of changes that were so successful at the AGO, but I've found here that there are deep cultural issues standing in the way, such that an isolated developer can't really put a dent in it. I believe the Solutions Architect position would provide me the opportunity to make a difference for developers all over the state, and it would be my honor and pleasure to do so.

Thanks for your time and consideration; I look forward to sharing my ideas and enthusiasm for the future of software development in Washington, and I hope it will be our first of many discussions on that topic!

At Your Service,  
Justin Burns, Developer (ITS5)  
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[twitter](#) / [github](#) / [youtube](#)

P.S. I know I'm breaking a cardinal rule by letting this span more than one page, but I still have *so much more* I want to share. To keep it manageable, I've collected the relevant items into 3 bulleted lists: my passions, my recent accomplishments, and some recent (personal) software projects and works-in-progress. I've also included a Letter of Recommendation I received from Rob McKenna, on my departure from the AGO.

### **Professional References:**

Jon White - Information Services Director, AGO  
360.664.2731 (work) / [jonw@atg.wa.gov](mailto:jonw@atg.wa.gov)

Janelle Guthrie - Communications Director, AGO  
360.586.0725 (work) / [janelleg@atg.wa.gov](mailto:janelleg@atg.wa.gov)

Sean Clowers - Software Development Manager, AGO (ITS6)  
360.664.0754 (work) / [seanc@atg.wa.gov](mailto:seanc@atg.wa.gov)

Laura Killian - Senior Developer/Analyst, Research & Data Analysis Division, DSHS (ITS6)  
Artist and Mentor at Procession Studios, OlyMEGA member  
360.902.0746 (work) / [killila@dshs.wa.gov](mailto:killila@dshs.wa.gov)

Dr. John Edwards - M.D., Radiology, Providence Centralia Hospital  
OlyMEGA Co-Founder and Board Member  
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## Stuff that Excites Me:

- **Agile Software Development**

- I love the agile approach to solving the complex problems of software development, and the way that self-organizing teams bring out the best in people.
- I'm trained as a Certified ScrumMaster and have practiced Scrum for over 6 years as a member of a development team within State Government.
- I've participated in all stages of software development projects, from planning and analysis, to negotiation and development, and finally shipping software and maintaining it into the future.
- I believe agile's focus on Automated Testing is one of the key principles that will help government IT "drain the swamp" that prevents more software projects from succeeding.
- I am familiar with many agile methodologies (including XP, Lean, Kanban, and JAD/RAD), and I would consider myself to be an advanced practitioner of Scrum, and of agile practices in general. I have both the capability and desire to train and support others in learning to use these tools effectively.

- **Catalyzing and Participating in Change**

- I'm a person who naturally embraces and thrives on change, in IT or otherwise
- I'm an early adopter of new technologies - devices, platforms, and software
- I believe in always remaining open to new ideas and approaches - even if they require going against conventional wisdom, or questioning deeply held assumptions.
- I'm pretty much fearless when it comes to diving into an unknown technology or problem domain. The ability to quickly assimilate, adapt to, learn from, and apply new knowledge has always been among my greatest strengths
  - Second only to the ability to break down big, complex problems into slightly smaller, slightly less complex problems. Repeatedly.

- **Technology, Computers, Networked Systems - and the Software that runs them**

- I'm extremely comfortable using any major OS platform, as user or as an administrator. I've been using Unix and Windows based systems side-by-side daily for at least 15 years now.
- I regularly develop software in/for Windows, Mac, Linux, iOS, Java and the Web. I'm constantly keeping myself up to date on the newest hardware and software, languages, platforms, etc

- **Makerspaces!**

- I'm a founder and organizer for "Olympia Makers, Engineers, Geeks and Artists" (OlyMEGA.org)
- I love the mission of Makerspaces: giving people access to education, mentorship, community, and tools.
- Organizing a Makerspace has been a challenging exercise in leading a non-hierarchical, decentralized organization of highly creative (and sometimes eccentric!) people.

- **Creative Coding**

- Unlike (far too) many developers, I don't hang up my keyboard at 5:01. I have a passion for creating things that is a part of my life 24x7. Creative coding is one of my main outlets for this.
- "Processing" (Java) and "OpenFrameworks" (C++) are my favorite creative coding environments
- I enjoy creating big, interactive multi-touch surfaces (using a projector and Kinect), and writing software that uses this interface to create novel experiences.
- I get a lot of satisfaction from exhibiting these projects publicly. I enjoy watching the reactions of people young and old, when they realize that they are interacting with what is, essentially, just light.

## Things I'm Proud Of:

- **Played a key role in the successful adoption of Scrum and agile practices at the Attorney General's Office, serving as ScrumMaster, Trainer, Developer, and much more.**
  - Leading by example and helping to pave the way, I explored and recommended new technologies, seeking consensus on technology decisions with team-wide impact, and providing training and support for new technologies in order to ease adoption across the team.
  - I left the development shop in good shape, happily practicing Scrum, in order to pursue expanded responsibility and new challenges at Ecology
- **Used Amazon Web Services and Drupal to quickly design and deploy the official website for the \$25 Billion National Foreclosure Settlement**
  - Used the Drupal CMS for its flexibility, easy content authoring for business staff, and responsive design - all without incurring significant development overhead, and with a quick turnaround.
  - Web servers were load-balanced, databases mirrored, and Amazon's Elastic Computing was used to add and remove VMs from the load-balancer as traffic demanded.
  - On its first day, the website was linked on the front page of ABC, NBC, CBS, Yahoo.com, MSNBC.com and countless other local and national news outlets. In that 24 hour period, we served over 1.5 million page views and over 400,000 visitors with no downtime.
  - Turnaround time on the website, from inception to completion, was approximately 14 days - I was the sole technical resource, and had never used Amazon Web Services prior to this project.
- **I've earned my Team Foundation Server Merit Badge - and spoken on Agile Adoption at Microsoft, to a room of 200+ senior ALM specialists, managers, architects, and developers,**
  - I've been the main person in charge of TFS administration at my dev shop for years (TFS 2005-2012).
  - I've created a few iterations of the "Build Server Stop Light" Information Radiator
    - v1 used relays and CFL lamps, but I've since moved to using addressable R/G/B LED strips
  - During "ALM Summit 3" at Microsoft earlier this year, I ended up substituting for Martin Woodward (a well-known author of several books about TFS, who also blogs at the "coding4fun" website)
    - I ran his Birds-Of-A-Feather session on "Fun in the Workplace", and was later asked (with just a few hours notice) to take his spot for a 15 minute "Lightning Talk" on a topic of my choosing
    - My talk was titled "Making Getting Better Funner" - using fun, interactive, and attention-getting techniques to improve development and raise visibility of software projects
  - Video: <http://channel9.msdn.com/Events/ALM-Summit/ALM-Summit-3/Making-Getting-Better-Funner>
- **I'm responsible for exactly two lines of code in Windows Vista**
  - As an SDET at Microsoft, I found an overflow condition in the firewall's dynamic port allocator (a feature that makes FTP "just work" through firewalls). I filed the bug along with a tiny fix that was eventually accepted and merged into the shipping codebase
- **I Built a "Light Painting Photo Booth" at Seattle MakerFaire 2012, and invited the public to participate in creating colorful, abstract visual art ([bit.ly/LightPainting2012](http://bit.ly/LightPainting2012))**
  - The "brush" was a Playstation Move motion controller, running my own custom software enabling color selection, motion-activated color, and remote camera shutter release
  - I researched and implemented "Sensor Fusion" techniques to improve motion tracking stability
  - I gave users direct camera control, using an arduino and IR LED to remotely trigger a Nikon DSLR's shutter release, activated by pressing a button on their "brush"

## What I've Been Up To Lately:

- **I'm currently the "Scientific Information Systems Lead Developer/Architect" (ITS5) at Ecology.**
  - I love Ecology's mission and I truly want to make a difference here, but after 8 months of observing their operations, I question if I can accomplish any meaningful change in my current position.
  - I've built a ton of credibility with teammates and co-workers by hitting the ground running in a demanding job role, and by demonstrating competency in a wide range of areas. Unfortunately, my immediate supervisor (and to an extent, the larger IT management culture) are resistant to making the kinds of substantive changes necessary to further the adoption of agile practices; a strong desire exists to "appear agile" while retaining a heavy top-down command structure.
  - Because of the nature of the culture, "sidestepping" management or "going over their head" would have serious repercussions, professionally and socially. I feel at this point like I could do more for the developers at Ecology by serving as the OCIO's Solutions Architect, where I would have the resources and mandate to set in motion positive change
  - In light of my experience working as a developer in the "Toxics Cleanup Unit", I can say that I wholeheartedly agree with the OCIO's recommendations regarding centralized development!
- **I'm continuing to explore and expand my horizons through creative and recreational coding, working with LEDs and interactive projection (and the occasional wild tangent):**
  - At a benefit for Procession Studios, I supplied live computer visuals for a dance performance
    - Customized fluid simulation for visuals, with wireless multitouch input from an iPad
    - After the dancers finished and the band started up, we turned a large section of the dance floor into an interactive touchscreen, running the same fluid visualizations
  - I've developed iOS software that translates TUIO (a protocol for networked multitouch - [tuio.org](http://tuio.org)) into native touches on the iPhone. This lets me project a working iPhone onto any flat surface.
    - I'll be exhibiting this at Seattle Makerfaire in June, as part of the OlyMEGA booth
  - I'm in the early stage of construction on a Multitouch Table (ala the "old" MS Surface)
  - My Wild Tangent: I'm building and programming an autonomous NERF Vulcan turret.
    - v1 uses an RC car controller, for v2 I plan to use OpenCV to automate the targeting system
    - Need to teach it Asimov's 3 Laws before making it autonomous - better safe than sorry!
- **I'm working with my fellow Makers to help OlyMEGA grow and thrive**
  - I co-taught a 12 week STEM class, covering Programming, Radio Communication, and Robotics. I was the programming instructor, and provided support during the other two units.
    - Each week, students were introduced to new concepts and techniques for programming the Arduino microcontroller, and used this knowledge to construct a 3-wheeled robot with basic obstacle avoidance (bump sensor), light following/avoidance, and RC control.
    - Students ranged in age from 13 to 70, most with little or no programming experience
  - We just moved OlyMEGA to a new, larger location - a 1500 ft<sup>2</sup> warehouse near the Capital Mall.
  - For the second year in a row, we'll have the largest booth at Seattle Makerfaire - demonstrating 3D printing, paper marbling, a giant iPhone, electric bikes, laser cut catapults, and more!
  - I continue to assist with lining up presenters and teachers to provide educational content.

Links:

**My Lightning Talk on creating positive change at ALM Summit 3:** [http://bit.ly/Making\\_Getting\\_Better\\_Funner](http://bit.ly/Making_Getting_Better_Funner)

**Interactive Dance Floor and a few unrelated LED projects:** <https://www.youtube.com/olymegajustin>

**Photos from my Light Painting photo booth at Makerfaire:** <https://secure.flickr.com/photos/77725949@N04/>

**Olympia Makers, Engineers, Geeks and Artists (OlyMEGA):** <http://olymega.org>



**October 2, 2012**

To whom it may concern:

We would like to offer our sincere recommendation of Justin Burns as an information technology professional. Justin most recently served our agency as an Information Technology Specialist 4 in our Information Services Division.

He played a leadership role in software development for our agency, including preparing our office for the Windows 7 deployment, assisting in automating our office's billing forms in support of our LEAN governing efforts, and developing software for our Catalyst consumer complaint system.

Most recently, he took the information services lead in assisting the Washington Attorney General's Office in building a national Web site to provide information on a \$25 billion settlement between the state Attorneys General, the federal government and the nation's five largest mortgage servicers.

This Web site was a vital communications tool for both the settlement parties and those who would benefit from the settlement. It required a high level of testing and development to ensure the site would be able to handle the high volume of traffic generated by the settlement announcement. Justin calmly and professionally worked with our office's public affairs unit to ensure the site worked as intended.

Thanks to his expertise and his valuable commitment to the team effort, the Washington Attorney General's Office won an award from Conference of Western Attorneys General, recognizing excellence in Web development.

While we were unfortunately unable to keep him at our office due to a new opportunity offered to him by another state agency, we are grateful for his work for our office and would be happy to work with him again in the future.

Thank you for the opportunity to recommend Justin Burns as an outstanding information technology professional.

Sincerely,

Rob McKenna  
Attorney General

Janelle Guthrie, APR  
Deputy Chief of Staff/Communications Director  
Office of the Attorney General