

## HISTORY:

Dave was born and raised in Ireland before moving to the United States at the age of 23. He went to University College Dublin, Ireland and worked in Dublin for 6 months before moving to the US. He has lived on the East, Midwest and Western regions of the US over the last 20 years.

## EDUCATION:

### **Virginia Commonwealth University (In association with Citadel, Charleston, SC)**

Grad: 2008 current GPA 3.7

Masters in Information Systems for Business

*Concentration: User Interface design/user-experience and Requirements analysis*

### **University College Dublin, Ireland**

Grad: 1999 final GPA equivalent 4.0

Bachelors degree in Science

## WEB DESIGN AND DEVELOPMENT SKILLSETS USED OVER THE YEARS:

- **IDEs:** Dreamweaver, Visual Studio
- **Programming:** PHP, Matlab, XML, Javascript, CSS, DHTML, some C#.NET, Perl, some Java
- **Graphics:** Adobe Fireworks, Illustrator, Photoshop, Flash
- **Systems analysis and development:** JAD, brainstorming, SWOT analysis, prototyping, GAP analysis, Stakeholder requirements elicitation, analysis and review, solution design, reinterative testing, usability testing with regard to HCI, continuous *ad hoc* development methods, working with multiple domain experts
- **System architecture design/management:** Visio, UML (Dataflows, state diagrams, wireframes, sitemaps, ERDs), MS Project, MS Word, Excel, Powerpoint, application of PMBOK ideas
- **People skills:** Leadership, approachable, easy to communicate with, self-motivated, extrovert, pragmatic, self-starter, passionate about work, strong analytical skills, need to take an interest in my work, fun.
- **Platforms:** Linux (Red Hat, Fedora)
- **Databases:** PostgreSQL, MYSQL, MSSQL
- **Digital Film Production/Editing:** DV Film - Pinnacle Systems Studios

## EXPERIENCE: <https://www.linkedin.com/in/mckillen>

**Basebuild, Inc.: Founder and President** 01/15 – present

<https://www.basebuildinc.com>

In 2015 I started Basebuild, Inc. to try and focus more on the types of projects that meant something to me. Of any of the achievements I have made in this life, the one I feel has gotten me the furthest is that I am a bridge-builder. Meeting people and making real connections has gotten me to where I am today. I truly believe in the old adage "It's not what you know, but whom" is the backbone of a happy and healthy life/business/existence.

Basebuild currently employs 6 fulltime staff members and 4 part-time. Over the years we have worked with locally, nationally and internationally known clients including Events.com, nastar.com, Select Health, the US and Swedish ski teams as well as many marketing and ad agencies.

**WebStrategiesInc.com** - Richmond, VA

**Director of Operations** 01/14 – 12/14

**Director of Development** 03/11 – 01/14

**PHP Developer and Graphic Designer** 03/08 – 03/11

**Getloaded.com** - Richmond, VA

09/07 – 02/08

**PHP Developer and Support analyst/developer**

- Programmed Getloaded projects from receipt of requirements document to project completion. Worked in PHP connected to a PostgreSQL database. Project examples: Online poll survey, User Click-count analysis.
- Worked with Marketing team in making design decisions on new projects, worked with Adobe Illustrator.
- Implemented Unit testing and Regression testing upon completion of development projects.
- Created QA testing documentation to close out projects.
- Worked in a support developer capacity fixing software bugs, creating data processing programs, addressing general admin and member issue tickets and working directly with users and support reps to solve day to day problems. Met with Support management to gather and document requirements for support programming projects.

**Data Blueprint** - Richmond, VA

03/07 - 09/07

**C#.Net Developer (Voluntary, Part-Time Evening)**

- C#.Net application developer on a custom metadata repository application. Using Visual Studio 2005, Tortoise change control software and MS SQL server 2005.
- Primary purpose to gain experience in .Net technology.

**Marinegenomics.org Project Bioinformatics Dept. MUSC** - Charleston, SC

04/05 – 09/07

**Web Designer/Developer (Information Resources Coordinator II)** – my work was reported in local newspaper (see publications below)

- Designed and developed webpage frontend and backends which enabled users to access annotative and analytical functions.
- Utilised Adobe Fireworks, Dreamweaver and some Photoshop for webpage and logo design.
- 3 year project scope with defined system requirements was defined and a mission statement put in place for the website and data management portion of the Marine Genomics project.
- Project plan/purpose was developed with specific directives on the maintenance and analysis of biological data Microarray and EST DNA sequences.
- A WBS was put in place to appoint specific project tasks.

- Milestones were enforced every 6 months to ensure progress and paper publications depended upon continued growth of the repository and analytical tools.
- Work with biocurators (users) in JAD sessions to collect, comprehend, and logistically formalize biological system processing and analysis requirements.
- Prioritized requirements and put into a definition document.
- Designed the architectural flow of the system (Visio etc.).
- Functionality included: User Login Functionalities, Est And 16s Rna Sequence Upload And Management Utility, A Sequence Blast/annotation Utility, Sequence Annotative Search Utility, Sequence Contig and Cluster Utility, Microarray Upload and Management Utility, Array Data Easy Retrieval To Matlab, Array 'bad-spot' Filtering, Within-array Calibration, Spearman/pearson Values, Differential Expression Values Determination, Array Clustering, Excel Report Generation Of All Values Including Differential Values, P-values, Fold Difference Values Between Spots Across Arrays Etc., Graphical Reports, Principle Component Analysis.
- Developed a PHP/Matlab based system using: Dreamweaver MX and installed new Mac OS X Unix servers with remote boot functionality.
- Managed Apache webserver and related Mysql and postgresql PHP extensions.
- Designed and built relational Postgresql and Mysql databases to house all microarray and EST data.
- Worked with users to create test conditions comparing expected outcomes to actual outcomes and implementing verification and validation testing.
- Made reviews of problematic areas and then iteratively redeveloped and retested.
- Trained in new 2 staff to understand the workings of the system.
- Provide maintenance and support for curators implementing changes to the system when necessary.
- Developed interim SWOT analysis to try to pinpoint strenghts, weaknesses, opportunities and threats in the project.

### **Medical University of South Carolina (MUSC) - Charleston, SC**

04/03 - 04/05

#### **Web Designer/Developer (Information Resources Coordinator I)**

- Designed and developed webpage frontend and backends which enabled users to access annotative and analytical functions.
- Utilised Adobe Fireworks, Dreamweaver and some Photoshop for webpage and logo design.
- Developed PHP and Matlab scripts as well as webpage frontends and built postgresql databases.
- Worked with new user requests and assisted PhD students to development of the Marine Genomics project.

### **Medical University of South Carolina - Charleston, SC**

05/00 - 04/03

#### **Biology Research Assistant**

- Implemented wet lab protocols as well as analytical computer programs such as Gene Spring for the manipulation and creation of genetic sequences
- Cloned Transgenic mice with a primary interest in Dr. Awgulewitsch's research lab on studying the role of members of Hox gene family in embryonic patterning and disease.
- Hox genes act as transcriptional regulators "structural" genes (e.g. keratin in skin and hair), as well as other regulatory genes.
- Hox genes have been implicated in a wide range of congenital malformations and diseases, including many forms of cancer and other degenerative diseases.
- Techniques included: DNA extraction. RT-PCR, Cloning, gel electrophoresis, centrifuging.

**Esat Net Corp.** - Dublin, Ireland  
**Internet Support Technician**

10/99 - 05/00

- Ensured Web farm up keep, by maintaining ethernet connections and power supplies to servers and monitors, facilitated secure customer access to their web servers.
- Trouble-shot corporate customer issues with internet connectivity devices, routers, terminal adapters, ISDN adapters, modems, email issues, website and domain name management issues.

**PUBLICATIONS AND WRITING SKILLS:****NEWSPAPER PUBLICATIONS (2):**

The **Post and Courier Newspaper** article: "Spoccer: Game uses Web to pick up players" by David Quick, April 12 2007.

**Charleston City Paper** review Article: "Algorithmically Speaking ~ Is South Carolina leading the world in Eco-forecasting" by Benjamin Schlau: May 5 2005.

**SCIENTIFIC PUBLICATIONS AND PRESENTATIONS (13):**

Matthew J. Jenny, Robert W. Chapman, Annalaura Mancia, Yian A. Chen, **David J. McKillen et al.** "A cDNA Microarray for *Crassostrea virginica* and *C. gigas*". To be published in 2007.

Annalaura Mancia, Mats L. Lundqvist,b, Tracy A. Romano,c, Margie M. Peden-Adams,c, Patricia A. Faira,b, Mark S. Kindy, Blake C. Ellis, Sebastiano Gattoni-Celli, **David J. McKillen et al.** (2006) "A dolphin peripheral blood leukocyte cDNA microarray for studies of immune function and stress reactions" *Developmental and comparative immunology* 22 July 2006.

NA O'Leary, HF Trent III, J Robalino, M Thompson Peck, **DJ McKillen et al.** (2006) "Analysis of multiple tissue-specific cDNA libraries from the Pacific whiteleg shrimp, *Litopenaeus vannamei*". *Integrative and Comparative Biology* 1- 9 May.

**DJ McKillen et al.** (2006) "Quantitative assessment of the transcriptomic response with microarrays of the marinegenomics.org initiative." Presentation in the 10th International Congress International Society for Developmental and Comparative Immunology at Charleston SC July 1-6. Confirmed.

J Robalino, JS Almeida, **DJ McKillen et al.** (2006) "Insights into the immune transcriptome of the shrimp *Litopenaeus vannamei* tissue-specific signatures of gene expression and changes in response to a lethal viral infection." Presentation in the 10th International Congress International Society for Developmental and Comparative Immunology at Charleston SC July 1-6. Confirmed.

RW Chapman, **DJ McKillen et al.** (2006) Title undisclosed, 10th International Congress International Society for Developmental and Comparative Immunology at Charleston SC July 1-6. Confirmed.

A Mancia\*, ML Lundqvist, TA Romano, MM Peden-Adams, PA Fair, MS Kindy, BC Ellis, S Gattoni-Celli, **DJ McKillen et al.** (2006) "Monitoring stress reaction and immune function in wild dolphins (*Tursiops truncatus*) using a dolphin peripheral blood leukocyte cDNA Microarray." Presentation in the 10th International Congress International Society for Developmental and Comparative Immunology at Charleston SC July 1-6. Confirmed.

A Mancia\*, ML Lundqvist, TA Romano, MM Peden-Adams, PA Fair, MS Kindy, BC Ellis, S Gattoni-Celli, **DJ McKillen et al.** (2006) "A Dolphin Peripheral Blood Leukocyte cDNA Microarray for Studies of Immune Function and Stress Reactions." *Developmental and Comparative Immunology* (In press).

J Robalino, JS Almeida, **DJ McKillen** et al. (2006) "Insights into the immune transcriptome of the shrimp *Litopenaeus vannamei* tissue-specific signatures of gene expression and changes in response to a lethal viral infection." *Physiological Genomics* (In prep).

JS Almeida, **DJ McKillen** (2006) "Bioinformatics at marinegenomics.org", NSF sponsored workshop on marine genomics at Charleston SC February 27-28.

JS Almeida, **DJ McKillen** et al. (2005) Design and Calibration of Microarrays as Universal Transcriptomic Environmental Biosensors. *Comparative and Functional Genomics* **6**(3):132-137(6).

**DJ McKillen** et al. (2005) Marine Genomics: A clearing-house for genomics and transcriptomic data of marine organisms. *BMC Genomics*, **6**, 34.

YA Chen, **DJ McKillen** et al. (2004) Optimal cDNA microarray design using expressed sequence tags for organisms with limited genomic information. *BMC Bioinformatics*, **1**, 191.

### **PROFESSIONAL ON-GOING EDUCATION:**

- Silicon Slopes Tech-talks
- Park City Chamber Member (Local business lectures)
- 1 Million Cups (Entrepreneur tech lectures)
- NET Magazine (Tech articles and Tech business management)
- LinkedIn (Tech articles, Web tech, AI etc.)

### **INTERESTS AND HOBBIES:**

- Purple belt in Carlson Gracie Brazilian Jiu Jitsu, training at First BJJ, Utah. Firstbjj.com
- First BJJ Kids and Fundamentals class Jiu-Jitsu instructor
- Certified USSF soccer coach
- Collegiate level competition experience in the sport of Judo in upper Kyu level at blue belt. Captained the UCD Judo Club in 1999 and took part in organizing the inter-varsities that year. Participated in Judo for approximately 10 years in total through Junior and senior levels.
- Invented and administered a pickup soccer league that spanned the East coast of the US: Original domain was Spoccer.com. <https://www.basebuildinc.com/wp-content/uploads/2015/09/Spoccer-newspaper.pdf>
- Creator of WhichMat.com, an application to assist Jiu-Jitsu competitors in find their IBJJF mat, fight times, opponent etc.