Robert T. Gruen
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Experienced, passionate, entrepreneurial developer with excellent problem solving, coding, communication, mentoring and design skills. Looking for exciting new opportunity.

Professional Experience

06/22 – 01/24 *Cold Jet*   *Web Application Development Manager*
- Responsible for the design and development of Cold Jet's IoT platform, "Cold Jet CONNECT Analytics". Completely developed on my own time and saves Cold Jet over $1M in licensing fees annually! Was more modern looking, responsive and performed significantly better than our previous solution, which was built using PTC's Thingworx.
- Responsible for all design, development, testing and project management
- Responsible for the database architecture (storing over 75 million records from over 3,000 machines in the field and handling several thousand queries per second)
- Hosted and performed training sessions for sales and service staff around the globe
- Managed and mentored development staff

08/15 – 06/22 *Cold Jet*   *Web Application Architect*
- Responsible for all PHP and database development, and for web server management on all of Cold Jet's LAMP web servers
- Conceptualized, designed and developed dozens of interactive, fully responsive, web based reports, from CSV based CRM data feeds, using HTML, PHP, mySQL, CSS, JavaScript and Highcharts to provide business intelligence and insights. Some key reports include:
  - 30 Day Sales Prediction
  - Campaign ROI Dashboard
  - Regional Sales Manager (RSM) Sales Dashboards
  - Lead Dashboard
  - Key Performance Indicators (KPI) KPI Dashboard
  - Opportunity Pipeline Dashboard
  - Lead and opportunity conversion rate reports
- Created an Android application (using Java) for Service Technicians performing preventative maintenance inspections on Cold Jet machines. They would directly input information into their tablet, which would then send the data to mycoldjet.com for review/analysis.

01/08 – 08/15 *Cold Jet*   *Senior Web Application Developer*
- Implemented new web sites for Cold Jet such as dryiceproduction.com, dryicecleaning.com, mycoldjet.com and more
- Actively seek out bugs and code efficiency gains
- Evaluate business problems, enhancement requests, and bugs to come up with new and innovative solutions
- Perform all custom development on Cold Jet's corporate web site, coldjet.com
- Created the Cold Jet web portal/intranet, mycoldjet.com, a secure web site for clients and employees to access business information, and for sales reps to share information with customers and prospective customers. Created several web applications on mycoldjet.com including:
  - Remote Monitors – secure real-time reporting on the production of dry ice by Cold Jet pelletizers and reformers. Accessible to Cold Jet service reps as well as

allowing customers to monitor their dry ice production from anywhere in the world. These were Cold Jet's first IoT enabled devices.

- Knowledgebase of all things related to dry ice cleaning and dry ice production.
- Product Configurator – a tool that allows sales reps to configure Aero dry ice blasting machines and share the information with prospective customers.
- ROI Calculator – provides prospective customers with their expected ROI if they cleaned with Cold Jet dry ice blasting equipment.
- Cold Jet Sales dashboard - over a dozen different charts with supporting data. Some of the key reports include: MTD sales by Sales Manager or by group, value of current opportunity pipeline, predictive sales report, sales by industry by quarter and more

09/05 – 01/08 ***Convergys***   ***Specialist, Web Developer***
- Responsible for all PHP and database development on Convergys' corporate web site, convergys.com
- Architected the hardware and software solution for Convergys' web environment
- Managed several junior developers and consultants on web projects
- Developed the Convergys Global Training Infrastructure. This system is used by 100+ trainers, for 10,000+ annual training deliveries. It provided course scheduling, online registration, course evaluations, reporting and more
- Designed and developed a PHP Project Dashboard that captures key project information and produces charts reporting on key project metrics such as CPI (Cost Performance Index), SPI (Schedule Performance Index) and more
- Developed custom reports including Executive Scorecards, Employee Utilization, etc.

03/03 – 09/05 ***Convergys***   ***Senior Associate, Web Developer***
- Member of Convergys' PHP Security Standards Committee
- Performed most PHP development on Convergys' corporate web site, convergys.com
- Developed a very successful PHP application for enterprise resource management
- Developed Convergys Alert, a PHP application that allows senior executives to track critical product issues and better understand how we are meeting Service Level Agreements with clients
- Developed a PHP application to securely serve Convergys training documents to those who request them and who are approved
- Integrated Google Search Appliance to handle search

08/02 – 03/03 ***Computer Horizons***   ***Consultant, Web Developer***
- Employed as a consultant for Convergys Corporation
- Developed web sites (HTML, PHP, mySQL and Oracle) for Convergys clients such as Sprint
- Developed marketing micro-sites using HTML, PHP, mySQL and Flash
- Integrated Inktomi Enterprise Search on the Convergys' Product Documentation web site
- Developed custom code to track visitor usage (page loads, downloads, security events, etc.) for the Product Documentation web site. I also created pages to display reports and graphs based on this information

03/01 – 05/02 ***PlusSize.com***   ***Lead Web Developer / CIO***
- Interviewed, hired and oversaw the technical staff and consultants
- Directed and/or performed all design and development efforts at PlusSize.com
- Worked directly with key partners to integrate their products and promotions
- Managed the PC office network, Linux servers, Apache web servers and MySQL databases
- Designed and created the product and member databases
- Developed interactive web pages using Perl/CGI, HTML, MySQL, Photoshop and Flash

- Developed Perl code to parse XML files containing product data from our vendors. The code would identify products we wanted on our web site, extract the data and store it in our database.
- Designed, developed, delivered and tracked, HTML emails for key partners such as: Jockey, Elisabeth, Procter & Gamble and many others.
- Grew the registered user base from 10,000 users to more than 75,000 users. Grew traffic from 500 visitors per day, to over 7,000 visitors per day

11/97 – 12/00 **Structural Dynamics Research Corporation (SDRC)** **Software Developer**
- *I-DEAS 9 Primary Project:* Served as Technical Lead on the team formed to implement an XML authoring environment at SDRC. I was responsible for developing project plans, UI prototypes and for the implementation of a C++, Windows based toolkit to support our writers with the various tasks involved in authoring online documentation.
  I-DEAS 8 Primary Project: Enhanced the Java based search engine that SDRC provided
- *I-DEAS 6 & 7 Primary Project*: Developed the process, the C++ applications and the UNIX shell scripts that convert SDRC's online documentation from Interleaf source documents into a complete, linked, HTML library. The conversion process preserves all text, fonts, graphics, tables, and hypertext links. Additionally during the conversion process, a Java applet I designed and wrote is automatically generated for the files that are being processed.
- Created a C++ application to connect our new HTML documentation to SDRC's *I-DEAS* product. I originally developed the application on IRIX but later ported it to HP, Sun, Rios and Windows NT.
- Consulted for all System Administration issues affecting Publications and Production computers. These systems comprise a network of more than 35 Sun/Solaris workstations, a Sun Enterprise 3000 file server, 5 SGI workstations, and 15 Windows NT systems.

02/97 - 11/97 **Structural Dynamics Research Corporation** **Production Tools Developer**
- Tools programming (UNIX/C, UNIX Shell Scripts, Java, JavaScript, HTML)
- *I-DEAS 5 Primary Project:* Rewrote the C programs and UNIX Shell Scripts used to process SDRC's Smart View documentation. My rewrite reduced the processing time for our documentation from 3 days down to about 12 hours.
- Responsible for the design, development and implementation of the tools used to localize UI files for the Metaphase PDM software. By creating text dictionaries that would be updated, sorted and saved for the next release, my tools helped minimize the department's localization costs.

10/94 - 02/97 **Structural Dynamics Research Corporation** **Production Specialist**
- Managed the disk space and work environment for the Publications department
- Refined and automated production processes with UNIX Shell Scripts and C programs
- Built and debugged the databases used by SDRC's *I-DEAS Smart View* product
- Provided technical support to SDRC's Publication and Localization departments
- Supported and maintained SDRC's Interleaf installation for the Publications group

12/92 - 10/94 **Structural Dynamics Research Corporation** **Lead Computer Operator**
Milford, Ohio
- Supported the UNIX, VAX and PC Help Desk
- Created UNIX Shell Scripts to support and automate MIS procedures and activities
- Scheduled and executed complete backups for all corporate file servers

10/90 - 10/92 **The Procter & Gamble Company** **Computer Operator**
Cincinnati, Ohio

Technical Experience (professional experience indicated)

Programming & Markup Languages

- **Web Development & Databases**
  HTML (20 years), PHP (15 years), mySQL (20 years), CSS (10 years), Python (1 year), Oracle (3 years), Java (5 years), Android (2 years), JavaScript (15 years), Perl/CGI (2 years), XML (1 year), AJAX (5 years), Apache (10 years), Responsive design/Flex (5 years), UI design (16 years)

- **Windows NT**
  Visual C++ (2 years)

- **UNIX** (Solaris/IRIX/Linux)
  UNIX/C++ (2 years), UNIX/C (4 years), UNIX Shell Scripts (5 years)

Artificial Intelligence
- Followed a tutorial to create stable diffusion from scratch using Python and PyTorch. You could enter a text prompt and generate images up to 768x768.

- Created Python code to play the following OpenAI gym games: CartPole, Breakout, Freeway, and Ms Pac-Man. Used python, stable-baselines3, and the OpenAI gyms to create different models. Learning to tweak hyperparameters to get the best possible outcome. Beginning to learn to use TensorBoard to better understand the learning process and how changes affect the learning process. (Python, Stable Baselines 3, TensorFlow, TensorBoard, OpenAI Gym)

- Created a web page that opens a stream from your local webcam. Used TensorFlow JS to examine the images in that stream and label items (such as 'person - 98%', or 'phone - 87%', etc.) in the live video stream (HTML, JavaScript)

- Created a simple web-based 2D driving simulation that learns to drive using genetic algorithms. Hundreds of cars spawn, after some time, the best ones are kept, their 'DNA' combined, mutations performed, and a new generation would spawn, repeating the process. (HTML, JavaScript)

- Created a web-based Asteroids game. Created a configurable neural network from scratch using JavaScript that is capable of training and then playing the game at a super-human level. (HTML, JavaScript)

Simulation/Game Development (Android/Java)
- Created a Google Play Store with more than 12 apps I developed. Everything was built in Java and examples included: Nimble Ninja, Waffling, 2048, Don't Touch the White Tile, Conway's Game of Life, Interactive Fluid Simulation, N-Body Simulation, and more.

Development Environments/Debuggers
- VS Code (4 years), Android Studio (1 year), Eclipse (4 years), Dreamweaver (12 years), MS Developer Studio (2 years)

Application Software / Frameworks
- jQuery, Highcharts, ChartDirector, Adobe Photoshop, Adobe Dreamweaver, 3D Studio MAX, Blender 3D, MS Office (Word, Excel, PowerPoint), Thingworx, Chrome, Edge, Firefox, PageMaker, Interleaf, vi and many more.

Professional Achievement Awards

<u>August 2021</u> – Won a quarterly award for the Cold Jet value of Personal Effectiveness. Awarded for my work to support the commercial launch of Cold Jet's IoT platform, CONNECT Analytics.

<u>April 2021</u> – Won a quarterly award for the Cold Jet value of Innovation. Awarded for my work to develop the "Fleet Management" module in Cold Jet's IoT platform, CONNECT Analytics.

<u>October 2020</u> – Won a quarterly award for the Cold Jet value of Innovation. Awarded for significant product enhancements to Cold Jet's CONNECT Analytics IoT platform.

<u>November 2019</u> – Won a quarterly award for the Cold Jet value of Innovation. Awarded for designing and developing Cold Jet's IoT platform, Cold Jet CONNECT. Was completely designed and developed during evening and weekend hours.

<u>August 2016</u> – Won a quarterly award for the Cold Jet value of Innovation. Awarded for designing and developing a new report, the Pipeline Dashboard. This report provided important insights into our sales pipeline that management previously did not have.

<u>March 2015</u> – Won the Cold Jet award for Customer for my never-ending desire to better serve my customers through web automation.

<u>March 2014</u> – Won the Cold Jet award for Innovation for my improvements to the company's Engineering Change Request system.

<u>August 2005</u> – Part of the Convergys Web Team that received the Web Marketing Association's 2005 Web Award for Outstanding Achievement in Website Development.

<u>August 2004</u> – Received the Spotlighting Employee Excellence award from Convergys for my role in developing a web-based resource management application that was used globally within Convergys.

<u>March 1999</u> – Received the 1998 SDRC Innovation Award for my role in developing the new, HTML based, Online Help Library for SDRC's I-DEAS product.

<u>June 1997</u> – Received an SDRC Achievement Award for Process Improvement during the release of SDRC's I-DEAS 5.

Education

<u>March 2023</u> – Completed "Python 3 for Beginners" course on Udemy (Certificate)

<u>June 2019</u> – Completed "Thingworx for Developers" course by PTC (Certificate)

<u>June 2000</u> – Attended the Object Oriented Design Using C++ (UML) course given at SDRC (Certificate)

<u>June 2000</u> – Attended the Principles of Object Oriented Design course given at SDRC (Certificate)

<u>May 2000</u> – Attended the XML for Programmers course given by Data Channel Corp. (Certificate)

<u>October 1996</u> – Attended the UNIX/C++ Programming course given by ITDC (Certificate)

<u>January 1995</u> – C++ Programming at the College of Mount St. Joseph (4.0 GPA, 4 credit hours.)

<u>November 1993</u> – UNIX System Administration training course given by ITDC (Certificate)

Associates Degree of Applied Business
*M*ajor: Computer Information Systems Programming
Cincinnati Technical College
November, 1992

Hobbies

- Japanese
  I have been studying the Japanese language (reading, writing, speaking and listening) for 4+ years. I enjoy that study and I enjoy watching historical Japanese dramas.

- Artificial Intelligence
  I am very interested in Artificial Intelligence and all of the ways it could help humanity. I have spent a lot of time learning by experimenting with different pieces of AI. I also enjoy learning about and using some of the latest tools, such as: Dall-E, ChatGPT, Bard/Gemini, Photoshop Generative AI, etc.

- Astronomy
  I enjoy learning about astronomy, stargazing, and astro-photography. I enjoy thinking about mind boggling objects like neutron stars, black holes and more.

- Chess
  I enjoy strategic and tactical thinking and chess helps keep my brain sharp. Find me on chess.com as "Bob_G412".

- Guitar
  When I'm not busy with my other hobbies, I enjoy finding time to relax and play guitar.

References, screenshots, demos and interviews available upon request.