

Morgan Conrad

Software Developer
and Consultant



313 WILSON ST.
PORT TOWNSEND WA 98368
650-440-9944

FLYINGSPANIEL@GMAIL.COM

FLYINGSPANIEL.COM

MORGANCONRAD.COM

CAREER SKILLS

- Full-stack web developer: JavaScript, HTML5, CSS3, NodeJS, PHP, Python.
- Thirty years experience in biotech instrumentation: data collection, analysis, algorithms, storage and user interface. Primarily Java, Swing, Relational DBs.
- Excellence in Multi-Threading and Object-Oriented Design.
- Strong scientific background to interact with in-house scientists and end users.

CLIENTS

NORTHWEST MARITIME CENTER

2016-2017

- Developed “iconicsails.nwmaritime.org” sailboat identification site.
- Custom PHP build system with data from Google Docs, Markdown, and pictures
- Integrated live location information with Google Maps
- Implemented basic search and REST API

LEUKOBYTE INC.

2010-2016

For their Java / Swing based CytoPaint software, I developed:

- Robust statistics, and Parks/Roederer/Moore “bixponential” transform.
- Automatic Compensation algorithm with a novel, simple UI.
- Parallel code exploited multi-core architectures, running nearly 4x faster.

SAN FRANCISCO GIANTS BASEBALL TEAM

2014

- Helped integrate their data systems with the 2014 Amateur Player Draft.
- Wrote several node.js command line apps to authenticate using OAuth, query MLB’s REST APIs, and convert JSON data into database friendlier formats.

COMPLETE GENOMICS

2012-2013

Working with their distributed JEE web app, I implemented:

- A new table and JDBC to capture imaging issues by slide and lane.
- Numerous feature requests, bug fixes, and support issues.
- Improvements on their C# / .NET interface and functionality.

CYTEK DEVELOPMENT

2009-2010

Lead developer for the hierarchical live gating component of their collection SW.

- Developed Java MVC components for typical flow cytometry gates.
- Integrated gate code with existing UI and underlying C++ collection code. My Java command queue solved multiple issues as the C++ code was not thread-safe.
- Developed Swing and SwingX trees and tables for a hierarchical statistics UI.

RECENT INDEPENDENT WORK

- Developed nextq.info, a node.js web site to find upcoming Dog Agility Trials.
- Two time presenter at the BayNode “Meetup” group, specializing in node.js.

PREVIOUS EXPERIENCE

APPLIED BIOSYSTEMS (NOW THERMO-FISCHER) 1990-2009

Staff Software Engineer. Developed numerous applications, mainly in Java/Swing, for high-throughput genetic analysis instrumentation.

BECTON DICKINSON BIOSYSTEMS 1984-1990

Senior Research Scientist. Developed software, mainly in Pascal and C, to support R&D and commercial applications for flow cytometry.

EDUCATION

Ph.D, Physical Chemistry, University of California, Berkeley, CA

B.A., Chemistry, Dartmouth College, Hanover, NH

PATENTS AND PUBLICATIONS

US Patents numbers 4,845,653 6,379,957 6,531,588 6,804,046.

Selected publications available at <http://flyingspaniel.com/patentsandpapers.html>