Chelsea Stauber

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SUMMARY OF QUALIFICATIONS

Developer with a sharp attention to detail and a background in geophysical research. A strong sense of aesthetics motivates me to solve complex problems in an elegant, scalable way. Interested in design and creating an excellent user experience. Extremely curious and adept at learning new concepts. Strong written and verbal communication of physical, technical, and mathematical ideas.

LANGUAGES AND TOOLS

- **Programming/Scripting Languages**
  Java, JavaScript, CSS, HTML, jQuery, Ajax
- **Environment and Workflow**
  Linux, Mac, Subversion, GitHub, Netbeans, Sublime

PROFESSIONAL EXPERIENCE

XtremeGeo, xtgeo.com

Boulder, Colorado — 2014-Current

- **Topics of Research**
  - Reverse Time Migration, Microseismic Event Location, Anisotropy, Wave Equation Modeling, Full Waveform Inversion, Pseudo-acoustic Wavefield Propagation, Generalized Linear Inversion, Finite Difference Methods, Descent Methods
- **Java Implementations**
  - Traditional finite difference scheme for 3D anisotropic pseudo-acoustic wavefield propagation, staggered grid finite difference scheme for 2D isotropic acoustic wavefield propagation, absorbing boundary conditions, conjugate gradient method for rock parameter inversion, advanced checkpointing for back propagating wavefield
- **Domestic and International Training**
  - Trained geoscientists to use company software to perform refraction statics on seismic data
- **Managerial Tasks**
  - Scheduled weekly meetings to facilitate technical communication and set deadlines
  - Organized projects and encouraged focused goal setting

Modular Robotics Incorporated, modrobotics.com

Boulder, Colorado — 2014

- Electronic and mechanical assembly
- Soldering circuit boards and bootloading embedded systems
- Troubleshooting of robotic electronics and hardware
- Testing printed circuit boards

J.B Saunders, Jbsaundersco.com

Boulder, Colorado — 2013-2014

- Place orders and make purchasing decisions for all Sparkfun inventory
- Help customers find the right parts for their projects
- Explain basic electronics to new hobbyists
- Assemble electronic and robotic displays
- Facilitate communications with event coordinators

RELEVANT PERSONAL PROJECTS

- Organize and lead a weekly meetup dedicated to solving

computationally challenging math problems using efficient algorithms.

EDUCATION

University of Colorado, Boulder

B.S. Mathematics, Emphasis on Physics — 2010 - 2013

- Computer Science Coursework: C++, the computational world
- Math Coursework: real analysis, differential geometry, linear algebra, differential equations, statistics, mathematical physics, mathematics for teachers
- Physics Coursework: modern physics, electromagnetism, quantum mechanics
- Topics of independent study from educational platforms like Coursera and Udacity include: python, web development, complex analysis, linear circuits, nanotechnology, audio engineering, fundamentals of electrical engineering, Object-Oriented JavaScript, HTML5 Canvas, Website Performance Optimization, Browser Rendering Optimization, Intro to Ajax, Intro to jQuery, JavaScript Design Patterns, JavaScript Testing, How to Use Git and GitHub.
- Collaborated with the Crafts Technology Lab to create electronic origami pieces

EXPERIENCE AND TECHNOLOGIES

- Familiar with basic physical computing concepts
- Practical and conceptual knowledge of basic electronics
- Proficient at researching and implementing technical information
- Experience patiently teaching technical concepts to clients

PERSONAL INTERESTS

- Dedicated guitarist
- Skilled acrobatist
- STEM enthusiast

REFERENCES

Available upon request.