Damon George

Bend, Oregon ● damon@kindgeorge.com ● 512-516-2361

Education

Oregon State University, Corvallis, OR   Sept 2019 - Present
Ph.D. Computer Science
  Information Processing Group under Dr. V John Mathews
  Researching machine learning algorithms to decode EMG Signals for controlling
  prostheses for amputees and quadriplegics.

Gonzaga University, Spokane, WA   Sept 2015 - May 2019
B.S. Computer Engineering
  GPA 3.99
  Garrigan Award for Valedictorian (Highest GPA in graduating class)
  Gonzaga President's List (Every Semester)
  Trustee, Lyle Moore, and Honors Scholarships

Coursework
  Algorithms & Data Structures, Database Management, MicroControllers,
  Electronics Design, Computer Security, Operating Systems, Computer Architecture,
  Network Theory, Natural Language Processing, Artificial Intelligence…

Projects
- Smart Helmet: A cyclist helmet that uses Vehicle-to-Everything wireless communication to share location data with nearby vehicles. The helmet uses received data from nearby vehicles to warn the cyclist of potential collisions via haptic and audible warnings.
  - Programmed an Apollo 2 Blue ultra low power micro controller in C using the Free RTOS real time operating system.
  - Designed the advanced collision calculations to be as efficient as possible given the hardware limitations, allowing the system to look ahead 10 seconds for collision.
  - Collaborated in coding the Java desktop Traffic Simulator using the Lightweight Java Game Library for OpenGL Graphics.
- Othello AI: An Othello-playing AI in Java, using alpha-beta search to analyze the state space with an advanced heuristic cost function. This AI won first in the class tournament.
  - Designed the complex cost function which analyzes each game board using 9 individual heuristics, such as the number of moves or number of flippable tokens.
  - Implemented Zobrist Hashing to hash game boards in order to store previous heuristic calculations, greatly increasing the speed of the alpha-beta search.

Experience

Open Sky Software, Inc. Bend, OR   Summers '16, '17, '18, '19
Software Development Intern
- Designed and programmed a Java command line password manager using the Spring Shell Framework to store and share encrypted company passwords among employees.
  - Learned cryptographic libraries and best practices for data encryption, including encrypting data at rest and in transit. Learned Subversion and Git software version control, and reinforced proper coding practices by shadowing veteran employees.
- Prepared a 'Template' Web Application to serve as the scaffolding for the firm's future web applications featuring Java for server side business logic, a MySQL database, and a HTML5, CSS Flex, and Javascript front end.
  - Implemented the Model-View-Controller architecture in Java using the Spring Framework, with Hibernate to interface between Java entities and the MySQL database.
  - Incorporated the Thymeleaf HTML5 templating framework to create and serve views.

- Learned best practices in HTML5/CSS leveraging the LESS pre-processor.
- Created and tested the application for all interface modes (desktop, tablet, and mobile).
- Developed error handling using Spring Exception Handlers and implemented detailed audit logging for all user actions using Hibernate Event Handlers.
- Collaborated to develop the next generation version of the firm's flagship inventory tracking product (www.skywareinventory.com) using the Template designed in the previous summer.
  - Coded an advanced Java and MySql transaction manager to track inventory transactions through time across multiple items, locations, and users with reporting that supports inventory industry standards such as Average, FIFO, and LIFO costing.
  - Developed complex Javascript to handle editable tables with custom fields, ajax autocomplete, and flexible form validation.

Tech Skills

Programming Languages:
- Skilled: Java, C/C++, MySQL, Python, HTML, CSS/LESS
- Competent: Javascript, x86-64 Assembly, VHDL

Software Frameworks: Spring Framework, Thymeleaf, Hibernate ORM, Node.js, React

IDEs and Other Tools: Eclipse, MatLab, MySQL Workbench, LTSpice, Bash Shell

Systems: Linux, Mac OSX, Windows 10