Damon George

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Education

Oregon State University Corvallis, OR Sept 2019 - Present

MS Computer Science (Machine Learning)

- GPA 3.96
- **NSF Graduate Research Fellow**
- Research Assistant in the Information Processing Group under Dr. V John Mathews.

Coursework

Machine Learning, Deep Learning, Intelligent Agents & Decision Making, Adaptive Signal Processing, Advanced Signal Processing Methods, Computer Vision, Estimation & Filtering

Research

Developing adaptive movement intent decoders that convert human biological signals into movement intent for use in prothetic limbs. Using neural network-based decoders and online learning methods to create adaptive decoders that learn during the online operation of the prostheses so as to prevent the long term performance deterioration.

Gonzaga University Spokane, WA Sept 2015 - May 2019

B.S. Computer Engineering

- GPA 3.99
- **Garrigan Award** (Best Academic Record 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

Senior Design Project

Smart Helmet: A cyclist helmet that uses Vehicle-to-Everything wireless communication to share location data with nearby vehicles. The helmet uses data received from nearby vehicles to warn the cyclist of potential collisions via haptic and audio warnings.

- Programmed an Apollo 2 Blue ultra low power micro controller in C using Free RTOS.
- Derived & implemented efficient yet precise collision calculations given the hardware limitations, allowing the system to look ahead 10 seconds for collisions.
- Created strict & detailed unit tests for ensuring the accuracy of collision calculations.
- Collaborated on a Java Traffic Simulator using the Lightweight Java Game Library for OpenGL Graphics.

Experience

Open Sky Software, Inc. Bend, OR Summers '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.

Technical Skills

Machine Learning Techniques

- Skilled: Deep & Convolutional Neural Networks, Online Learning, Ensemble Networks
- Competent: Reinforcement Learning, Computer Vision, Recurrent Networks

Programming Languages

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

Software Frameworks

- Java: Spring Framework, Thymeleaf, Hibernate ORM, LWJGL, Hadoop
- C/C++: Free RTOS, Arduino
- Python: NumPy, PyTorch, Tensorflow, Tkinter, OpenCV
- Javascript: Node.js, React

IDEs and Other Tools

Bash, Git, VS Code, Eclipse, MatLab, MySQL Workbench

Systems

Linux, Mac OSX, Windows 10