

DAVID TORRES

SOFTWARE ENGINEER

BACKGROUND

Software engineer with an extensive background in mathematical modeling and scientific computation. Expertise in modern research areas in machine learning and computer vision such as object detection, statistical classification methods, 3D reconstruction, image processing and optimization. Experience developing software in C/C++ and Java.

COMPUTER SKILLS

C/C++ • Java • Object Oriented Design • Design Patterns • Matlab • Intel Performance Primitives • OpenCV • PHP • HTML • Linux • Windows • Facebook API

EXPERIENCE

Software Engineer at Vision Robotics Corp, San Diego, CA. (2008-2009)

Research/development of object detection algorithms used in agriculture-based inventory-robots. Implemented 3D reconstruction techniques and designed object detection and tracking logic in our robotic grape vine pruner.

Research Assistant at the University of California, San Diego. (2006-2009)

Helped develop a music auto-tagging and keyword search engine (think Google for music.) Conducted research to “teach” machines to discover musically meaningful words. Research has led to several published articles. List of publications at <http://www.cse.ucsd.edu/users/datorres>

Software Consultant at Music Search, Inc, La Jolla, CA. (2007-2008)

Helped implement a musical search engine based on our novel artificial intelligence research. Developed back-end software that processed and analyzed musical data. Developed logic for a data collection music game that was launched on Facebook.

Software Engineer at Sequenom, La Jolla, CA. (2005)

Extended the capabilities genetic sequence analysis software tools. Ported DNA analysis software from Windows to Linux.

EDUCATION

- 2009 **MS Computer Science**
UC San Diego
Emphasis: Machine Learning
- 2004 **BS Computer Science**
University of Texas, Austin
Emph: Scientific computation
- 2004 **BS Mathematics**
University of Texas, Austin
Emph: Applied mathematics

INTERESTS

Software engineering, linux development, optimization (operations research) parallel computation, data visualization

CONTACT

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