

# Guilherme Oliveira

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## CONTACT INFORMATION

Address: Wisbyer Strasse 63, Berlin  
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E-mail: ghophp@gmail.com  
Born: 29 September 1991  
Civil Status: Single  
Nationality: Brazilian  
Portfolio: ghophp.github.io



## KEYWORDS

**Problem solver, fast learner, Agile integrant, language agnostic**

## CORE

### COMPETENCIES

- The Biomimicry Center
- BEYOND Center for Fundamental Concepts in Science
- Center for Social Dynamics and Complexity

## RESULT

### ACCOMPLISHED

- The Biomimicry Center
- BEYOND Center for Fundamental Concepts in Science
- Center for Social Dynamics and Complexity

## AWARDS

- The Biomimicry Center
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## PROFESSIONAL EXPERIENCE

**Arizona State University**, Tempe, AZ

*Assistant Professor*

**August 2015 (upcoming)**

- Joint Appointment:
  - School of Computing, Informatics, and Decision Systems Engineering
  - School of Sustainability
- Graduate faculty in Industrial Engineering/Operations Research, Sustainability, and Animal Behavior.
- Interdisciplinary laboratory focus on decision making and organization.

*Associate Research Scientist*

**August 2014 to present**

*Postdoctoral Scholar*

**July 2012 to August 2014**

- Supervisor: **Professor Stephen C. Pratt**
- Novel application of sophisticated quantitative analysis and modeling techniques to animals, with social insects as a particular focus.

- Development of new algorithms for robotics and other autonomous systems based on animal behavior, with focus on distributed decision making.
- Supervision of graduate and undergraduate students in engineering, computer science, and biology in tasks related to biological analysis and modeling as well as technological bio-mimetic design.

**The Ohio State University**, Columbus, OH

*Postdoctoral Researcher*

**September 2010 to June 2012**

- Funding: **National Science Foundation** Cyber-Physical Systems (ENG, ECCS)
  - “Autonomous Driving in Mixed-Traffic Urban Environments” (grant #09
  - Supervisor (co-PI): **Professor Paolo A. G. Sivilotti**
  - PI: **Professor Ümit Özgüner**
- Development of new approaches to software verification in the context of hybrid-state and hybrid-time dynamical systems.
- Supervision of student design project for novel vehicle-to-vehicle communications systems to assist in adaptive cruise control.

**National Instruments**, Austin, TX

*Hardware R&D Intern for Multifunction DAQ*

**June 2003 to September 2003**

- Designed final verification test fixture for use with STC2 MIO products.
- Designed and executed study of the effect of varying burn-in time on long-term drift of common industry voltage references.

*Hardware R&D Intern for Multifunction DAQ*

**June 2002 to September 2002**

- Designed and performed validation tests for 16-bit 800 kHz NI-6120 SMIO DAQ.
- Designed high-quality source to use with NI-5411 arbitrary function generator.

**IBM Network Storage**, Research Triangle Park, NC

*Core Systems Software Developer for FlexNAS* **June 2001 to September 2001**

- Designed and implemented highly available multihop communications subsystem.
- Participated in software development of various vital box services.

**CallTech Communications**, Columbus, OH

*Information Technology Systems Engineer*

**June 1997 to May 2001**

- Responsible for the acquisition, setup, and administration of all hardware and software systems supporting **NetWalk** Internet service and web presence provider.
- Designed and implemented state-of-the-art open-source highly available load-balancing system supporting thousands of virtual servers.
- Developed call-center software for clients such as CompuServe, AOL, and Priceline.

**MegaLinux Communications**, Dublin, OH

*Web Developer and Support Representative*      **June 1995 to May 1997**

- Produced web content for commercial clients.
- Assisted in administration of UltraSPARC, x86, 680x0, and PowerPC systems.
- Developed multi-platform open-source file-sharing solution.
- Provided technical support for Internet and web presence customers.

REFERENCES    **Dr. Stephen C. Pratt** (e-mail: [stephen.pratt@asu.edu](mailto:stephen.pratt@asu.edu); phone: +1-480-727-9425)  
AVAILABLE TO

CONTACT      • Associate Professor, [School of Life Sciences, Arizona State University](#)  
                 ◇ School of Life Sciences, PO Box 874501, Tempe, AZ 85287-4501  
                 ★ *Dr. Pratt is my current postdoctoral supervisor.*

**Dr. Spring M. Berman** (e-mail: [Spring.Berman@asu.edu](mailto:Spring.Berman@asu.edu); phone: +1-480-965-4431)

- Assistant Professor, [Mechanical and Aerospace Engineering, Arizona State University](#)
- ◇ School for Engineering of Matter, Transport, and Energy, PO Box 876106, Tempe, AZ 85287-6106
- ★ *Dr. Berman is collaborator on my bio-mimicry work.*

**Dr. Paul C. W. Davies** (e-mail: [Paul.Davies@asu.edu](mailto:Paul.Davies@asu.edu); phone: +1-480-965-3240)

- Regents Professor and Director, [Beyond Center for Fundamental Concepts in Science, Arizona State University](#)
- ◇ Beyond Center for Fundamental Concepts in Science, P.O. Box 871504, Tempe, AZ 85287-1504
- ★ *Dr. Davies is collaborator on my origins-of-life work.*

**Dr. Sara Imari Walker** (e-mail: [sara.i.walker@asu.edu](mailto:sara.i.walker@asu.edu); phone: +1-480-727-2394)

- Assistant Professor, [School of Earth and Space Exploration, Arizona State University](#)
- ◇ ASU School of Earth and Space Exploration, PO Box 871404, Tempe, AZ 85287-1404
- ★ *Dr. Walker is collaborator on my origins-of-life work.*

**Dr. Pietro Michelucci** (e-mail: [pem@thinksplash.com](mailto:pem@thinksplash.com); phone: +1-571-235-3288)

- Principal, ThinkSplash LLC, Washington, DC
- ★ *I co-authored a chapter in the Handbook of Human Computation, for which Dr. Michelucci was the editor-in-chief.*

**Dr. Paolo A. G. Sivilotti** (e-mail: [sivilotti.1@osu.edu](mailto:sivilotti.1@osu.edu); phone: +1-614-292-5835)

- Associate Professor, [Computer Science and Engineering, The Ohio State University](#)
- ◇ 395 Drees Laboratories, 2015 Neil Ave., Columbus, OH 43210
- ★ *Dr. Sivilotti is my past postdoctoral supervisor.*

**Dr. Bruce W. Weide** (e-mail: [weide.1@osu.edu](mailto:weide.1@osu.edu); phone: +1-614-292-1517)

- Professor and Associate Chair, Computer Science and Engineering  
The Ohio State University
- ◇ 395 Drees Laboratories, 2015 Neil Ave., Columbus, OH 43210
- ★ *Dr. Weide is a co-PI on the NSF grant that funded my previous post-doctoral position.*

**Dr. Ian M. Hamilton** (e-mail: [hamilton.598@osu.edu](mailto:hamilton.598@osu.edu); phone: +1-614-292-9147)

- Assistant Professor, Evolution, Ecology, and Organismal Biology and Mathematics  
The Ohio State University
- ◇ 300 Aronoff Laboratory, 318 W. 12th Avenue, Columbus, OH 43210
- ★ *Dr. Hamilton has been a valuable interdisciplinary resource to me.*

**Dr. Kevin M. Passino** (e-mail: [passino.1@osu.edu](mailto:passino.1@osu.edu); phone: +1-614-312-2472)

- Professor, Electrical and Computer Engineering, The Ohio State University
- ◇ 205 Drees Laboratories, 2015 Neil Ave., Columbus, OH 43210
- ★ *Dr. Passino was my graduate adviser.*

**Dr. Andrea Serrani** (e-mail: [serrani.1@osu.edu](mailto:serrani.1@osu.edu); phone: +1-614-292-4976)

- Associate Professor, Electrical and Computer Engineering  
The Ohio State University
- ◇ 205 Drees Laboratories, 2015 Neil Ave., Columbus, OH 43210
- ★ *Dr. Serrani was a member of my doctoral committee.*

**Dr. Richard J. Freuler** (e-mail: [freuler.1@osu.edu](mailto:freuler.1@osu.edu); phone: +1-614-688-0499)

- Professor of Practice, Mechanical and Aerospace Engineering  
The Ohio State University
- ◇ 244 Hitchcock Hall, 2070 Neil Ave., Columbus, OH 43210
- ★ *Dr. Freuler coordinates the Fundamentals of Engineering for Honors program in which I served as an instructor early in my academic career.*

**Dr. George H. Staab** (e-mail: [staab.1@osu.edu](mailto:staab.1@osu.edu); phone: +1-614-292-7920)

- Associate Professor, Mechanical and Aerospace Engineering  
The Ohio State University
- ◇ W192 Scott Laboratory, 201 W. 19th Ave., Columbus, OH 43210
- ★ *Dr. Staab is the faculty adviser for the OSU FIRST robotics and engineering outreach group of which I was a four-year member and team leader.*

**Dr. Clayton Daigle** (e-mail: [Clayton.Daigle@silabs.com](mailto:Clayton.Daigle@silabs.com); phone: +1-512-532-5935)

- Mixed-Signal Engineer, Silicon Laboratories, Austin, TX
- ★ *Dr. Daigle was my direct supervisor when I worked for National Instruments as an analog hardware R&D engineer.*

MORE  
INFORMATION

More information and auxiliary documents can be found at  
<http://www.tedpavlic.com/facjobsearch/>.