

Isaac David Reyes González

1993-03-01, Aguascalientes, Mexico

isacdaavid@isacdaavid.info

<https://isacdaavid.info>



Computer engineer and master in neuroscience based in Guadalajara, Mexico. My interests span theoretical and cognitive neuroscience, with a focus on fundamental consciousness research.

Professional experience

- (Mar 2021 - present) **GNU+Linux system administrator**
Neubox, the biggest web hosting provider and domain registrar in Mexico
- (Jun 2021-Jul 2021) **Teaching Assistant**
Neuromatch Academy, an online summer school for computational neuroscience
- (Jun 2020 - Jul 2020) **Teaching Assistant**
Neuromatch Academy, an online summer school for computational neuroscience
- (Mar 2016 - Mar 2017) **Research Assistant**
Center for Research in Geography and Geomatics
- (Jan 2016 - Mar 2016) **IT Security Engineer**
Softtek
- (Aug 2014 - Aug 2015) Embedded C++ and SBC programmer trainee, system administrator trainee
Servicios Especializados SUOI

Education

- (Aug 2018 - Apr 2021) Master of Science, Neurobiology (with honors)
National Autonomous University of Mexico (UNAM)
Thesis: *Neural correlates of emotional perception by Multi-Voxel Pattern Analysis*
Supervisor: Dr. Fernando Barrios
- (Jan 2018 - unfinished) Master of Science, Cognitive Science
Autonomous University of the State of Morelos
- (Aug 2011 - Dec 2015) Bachelor of Engineering, Computer Engineering
Autonomous University of Aguascalientes
- (Aug 2008 - Jun 2011) High-school diploma (*with honors*)
Monterrey Institute of Technology and Higher Education (ITESM)

Courses

A list with all university-level courses I have taken is available [here](#).

Summer schools

- (2020, 2021) Neuromatch Academy: An online school for Computational Neuroscience

Conferences

- (2020) Organization for Human Brain Mapping, Annual Meeting.
- (2019) XXI Reunión de neuroimagen. Guanajuato, Mexico.
- (2018) XX Reunión de neuroimagen. Guanajuato, Mexico.

Publications

- (2021) Isaac David, Fernando Barrios. *Localizing Brain Function Based on Full Multivariate Activity Patterns: The Case of Visual Perception and Emotion Decoding* (preprint)
- (2021) Bernard Marius't Hart, et al. *Neuromatch Academy: a 3-week, online summer school in computational neuroscience* (preprint)
- (2021) Isaac David. *Estudio de los correlatos neurales de la percepción emocional por análisis de patrones en multitud de voxels* (master's thesis). Universidad Nacional Autónoma de México
- (2016) Isaac David, Oscar Siordia, Daniela Moctezuma. *Features combination for the detection of malicious Twitter accounts*. IEEE Xplore

Conference presentations

- (2020) Isaac David, Fernando Barrios. *Neural correlates of emotional perception by Multi-Voxel Pattern Analysis*. Organization for Human Brain Mapping, Annual Meeting.
- (2019) Isaac David, Federica Sassi, Fernando Barrios. *Neural correlates of emotional perception by Multi-Voxel Pattern Analysis*. XXI Reunión de neuroimagen. Guanajuato, Mexico.

Skills

Languages

- Spanish (Castilian), native
- English, proficient (C1 or above):
 - (2019) TOEFL iBT, 111/120
 - (2011) TOEIC, 920/990
- French, intermediate

Neuroimaging equipment and protocols

Under the supervision of technicians and professors, I have co-collected behavioral, fMRI (task and resting-state), T1-weighted and T2-weighted data from tens of healthy adult subjects in a 3-Tesla General Electric Discovery MR750 magnetic resonance scanner.

Similarly, I have participated in tens of neuroimaging study protocols (including diffusion-weighted studies and all sorts of psychological tasks), using both the aforementioned scanner and a 3-T Philips Achieva TX system.

Computer skills

- **Languages:** R, {,ba}sh, Python, Markdown, Make, sed, awk, TeX, HTML, CSS, C, javascript, SQL, C++, Java, C#, PHP, Emacs Lisp
- **ML libraries and frameworks:** NumPy, Scikit-learn, pyMVPA, PyTorch
- **Neuroimaging software:** pyMVPA, FSL, FreeSurfer, MRtrix, XNAT
- **Psychophysics software:** PsychoPy
- XNAT
- **Operating systems:** GNU+Linux and Unix-like operating systems, over 12 years of daily and professional experience (Arch-based systems, Debian/Ubuntu, Fedora/RedHat/CentOS, CloudLinux)
- **Init systems:** systemd, sysV, openRC
- **Network services:** HTTP/S (Nginx, Apache, Cherokee, Lighttp), SMTP (Postfix, Exim), IMAP/POP (Dovecot), SSH (OpenSSH), rsync, DNS, tcpdump
- **Database servers:** MariaDB/MySQL, PostgreSQL, MongoDB
- **Monitoring:** NagiosXI
- **Provisioning (infrastructure-as-code):** ansible
- **Big Data:** MapReduce/Hadoop, GFS, HBase
- **Virtualization:** KVM/qEMU, proxmox, vmWare, VirtualBox
- **Containers:** chroot, docker, singularity
- **Shared hosting:** CloudLinux, cPanel, DirectAdmin
- **Filesystems:** ext{3,4}, btrfs (ZFS-like), xfs, NFS
- **Version control systems:** Fossil, Git

- **Cryptography:** PGP (GPG key or fingerprint 38D33EF29A7691134357648733466E12EC7BA943), OpenSSL
- **Bootloaders:** GRUB 2, uboot
- **Software engineering methodologies:** Kanban, Scrum

Awards

- (2021) Alfonso Caso Medal. National Autonomous University of Mexico
- (2015) CENEVAL's National Bachelor's Degree Graduation Exam (EGEL in Spanish), outstanding performance diploma
- (2010) II Alfonso Reyes Contest for Graphic Creation, 2nd best cartoon
- (2007, 2008, 2010) Mexican Mathematical Olympiad, State Finals, 1st prize (shared)
- (2009) Mexican Olympiad in Informatics, State Finals, 1st prize (shared)
- (2008) Aguascalientes Educational Excellence Award (PREXEA)
- (2008) National Higher Education Entry Exam (EXANI-I), 2nd best State score
- (2007) Presidency of Mexico, award for academic achievement (multiple recipients)
- (2005) Children's Olympiad of Knowledge, school district's 1st prize

Memberships

- (2021 - present) Free Software Foundation
- (2020 - 2021) Organization for Human Brain Mapping
- (2016 - 2017) Free Software Foundation
- (2013 - 2015) Jazz Big Band, Autonomous University of Aguascalientes
- (2012 - 2016) Ensemble Real de Jóvenes Universitarios (youth orchestra), Autonomous University of Aguascalientes

Amusement

- I am an amateurish pianist with a taste for all sorts of art music (some recorded performances here, here and on my website).

- I used to devote much of my spare time to drawing and painting. The appetite has vanished in recent years though. Works also available on my website.

Volunteering

- I am a volunteer for the Free (i.e. Libre) Software community, more prominently for Parabola, a variant (also known as distro) of the GNU+Linux operating system. There as an official hacker from 2015 to 2018 I co-founded the ARMv7 port, rescued the i686 port from abandonment, maintained packages up-to-date, helped improve some of the development tools and server infrastructure; among various things.
- I have been editing Wikipedia steadily since 2011. The motivation for producing unrestricted culture and educational material is analogous to my advocacy for libre software.