David Gusmao

Orlando, FL | 407-461-6844 | davidegusmao@outlook.com | linkedin.com/in/david-e-gusmao | github.com/D4DavidG | d4davidg.github.io

EDUCATION

University of Central Florida   Orlando, FL
B.S. in Computer Science — GPA: 3.49   *Expected May 2027*
- Bright Futures Academic Scholarship; Passed the Computer Science Foundation Exam.

PROJECTS

PocketProfessors | *React, TypeScript, Node.js, Express, MongoDB, JWT*   Jul 2025
- Full-stack MERN app inspired by a TCG: users log in, open packs, and collect cards; responsive UI and accessible components.
- Led frontend theming/UX and coordinated team delivery; supported API shape and JWT refresh lifecycle.

FitnessFunctions | *PHP, MySQL, HTML/CSS, JavaScript*   November 2025
- Role-based class enrollment system with Admin/Member dashboards, instructor/class CRUD, and capacity tracking in MySQL.

CS Majors vs Gorilla (Contact Manager) | *JavaScript, PHP, AJAX/XHR, HTML/CSS*   June 2025
- Contact manager with add/edit/delete/search and form validation; communicates with PHP endpoints via XMLHttpRequest.

SKILLS

Programming Languages & Frameworks: Java, JavaScript, TypeScript, React, Node.js, PHP, Python, HTML, CSS, C++, LaTeX
Databases & Systems: MongoDB, MySQL, Linux, Windows, Apache (LAMP), MERN architecture
Developer Tools: Git, GitHub, Makefiles, VS Code, Postman, Bash, Overleaf
Cybersecurity & Systems Concepts: Secure coding practices, network security fundamentals, software hardening concepts, vulnerability awareness, build-system reliability
Research & Data Skills: Empirical software research, data organization and validation, reproducible workflows, experimental documentation, LaTeX-ready reporting, pgfplots visualizations
Professional Skills: Project management, API communication, database design, frontend accessibility, problem-solving, technical documentation, teamwork
Certifications: Human Subjects Research — Group 2 (Social/Behavioral), Responsible Conduct of Research (Engineers), Certified Internet Business Associate, Microsoft Technology Associate: Windows OS Fundamentals, Microsoft Technology Associate: Introduction to Programming Using Python, Red Cross Water Safety Instructor

RELEVANT EXPERIENCE

Undergraduate Research Assistant — Hardening Build Systems   Oct 2025 – Present
Research Project   *Orlando, FL*
- Contribute to research improving the security and reliability of software build systems through empirical analysis and tooling.
- Build scripts to summarize build artifacts/outcomes (e.g., parsing `uniq -c`-style counts) and generate LaTeX-ready tables + pgfplots visualizations.
- Project page: pappasbrent.com/research/hardening-build-systems

Research Assistant — Human Factors: Group Study   Feb 2025 – Present
University of Central Florida   *Orlando, FL*
- Supported experiments on how programmers debug code in groups; contributed to data collection workflows and study setup.
- Assisted with biometric instrumentation (heart rate, respiration, skin conductance, gaze, prefrontal cortex blood oxygenation) to improve measurement quality.

Swim Instructor   Jul 2023 – Present
Rosen Aquatic and Fitness Center   *Orlando, FL*
- Led 1–6 person sessions from water survival to competitive swimming; improved competency via targeted lesson plans.
- Communicated effectively across age groups and language barriers to enhance participant experience.