Andres Gonzalez

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Education

PhD, Computer Science — **Texas State University – (Aug '21; Jan '25 – TBD)**

- Teacher-of-record – CS3339 – Computer Architecture (Fall '25, Spring '26); CS1319 – Foundations of Computer Science (Fall '21)
- Dissertation — Parallelization Systems and Algorithms (Graph Analytics), CUDA

MS, Computer Science with Thesis — **Texas State University – Dec 2020**

- Received scholarship for full program coverage
- Thesis work on Parallelization of Combinatorial Optimization Problems (Travelling Salesman)

MS, Biochemistry with Thesis — **Texas State University – Jul 2014**

- Presented research at San Diego Experimental Biology ASBMB April 2014
- TA for several laboratory courses
- Thesis work focused on enzymatic mechanics and protein structure interactions

BS, Biology and Chemistry — **Texas State University – May 2012**

- Graduated with Honors – Cum Laude
- Dean's List Spring 2009, 2011 and Certificate of Scholarship, Spring 2010

Computer Science Qualifications

- Founder/Owner of AminoAcidStudios (http://www.aminoacidstudios.com/)
  - https://store.steampowered.com/search/?publisher=Amino%20Acid%20Studios
- Software Engineer Experience

  C++, CUDA, Python, C, C#, Java, Objective-C (iOS), SQL (Oracle, postgreSQL), Linux, bash/zsh, Homebrew, SVG, HTML, JavaScript, Axios, Vue.js, lodash, apollo, CSS/SCSS/SASS, Tornado / Flask(gunicorn), Node.js, npm, yarn, Apache, Jenkins, Ajax, JQuery, Jest, Babel, JSON/YML, Docker, ngrok, cypress, Azure, OAuth2, SQLAlchemy, GLFW, Dear ImGui + ImPlot, OpenGL, FFTW + cuFFT, cuOpt, MATLAB, Unity, Unreal Engine 4, Godot, PyTorch + PyG, Scikit-Learn, Ansible, Make, Cmake, boost
- Parallelization with MPI, OpenMP, Pthreads, CUDA
- VCS with GitHub, BitBucket (Business Integration with JIRA and Confluence - Atlassian)

Laboratory Qualifications

- Hamilton Microlab STAR Pipetting System
- Procleix Tigris (Transcription Mediated Amplification)
- Polymerase Chain Reaction
- Agarose Gel Electrophoresis
- SDS-PAGE
  - Tris/Tricine and Tris/Glycine
- Western Blotting
- *E. coli* BL21 expression and cloning systems
- HPLC
- Stock Solution Preparation
- DNA Sample Preparation
- Abbott Architect C8000 and i1000
- Abbott PRISM
- GRIFOLS Triturus System
  - Tetanus
  - Rabies
  - Syphilis
- Helena Serum Protein Isoelectric Focusing Electrophoresis (SPIFE) 3000 System
- BIAcore X - Surface Plasmon Resonance
- Rheometry
- Plasmid Transformation
- Restriction Enzyme Digestion
- DNA Cloning
- ASi-Manager Rapid Plasma Reagin
- Ortho Summit Processor and VERSEIA System (ELISA)
- Competent Cell Preparation
- Native PAGE
- Column Chromatography
- Protein Purification
- Cell Culture
- Centrifugation
- pH Detection/Calibration
- UV/Vis Spec
- Particle Imaging/Sizing
- Microscopy
- DNA Ligation

Experience

Senior Software Engineer – Tech Lead / Full Stack Dev at **L7 Informatics** **Apr '22 – Dec '24**

Senior Software Engineer at **National Instruments monoDrive** **Jan '22 – Apr '22**

- Primarily focused on developing radar simulation for autonomous vehicles' Advanced Driver Assistance Systems (ADAS).

Software Engineer – Full Stack Developer at **L7 Informatics** **Feb '21 – Sep '21**

- Played key role in developing L7's Unified Data Modeling platform ESP (Enterprise Science Platform) in a Continuous Integration/Continuous Deployment, Agile environment

Laboratory Operations Support Specialist at **BIOMAT USA** **Jan '21**

Serological Testing Technologist **Aug '17 – Jan '21**

Nucleic Acid Testing (NAT) Technologist **Oct '14 – Aug '17**

- Successfully upheld full-time working standards while attending graduate school
- Processed and analyzed collected plasma samples for viral components
- Assigned additional responsibilities for ancillary testing of products used for manufacturing
- Performed regular biochemical laboratory maintenance, including solution preparation, decontamination of laboratory equipment, upkeep of testing machinery through daily, weekly, and monthly maintenance, etc.
- Maintained cGMP, GDP, FDA, CLIA, and EMA compliance
- Continuously upheld a team-orientated environment in a fast-paced, streamlined setting
- Held acting Lead Testing Technologist role
- Completed GRIFOLS' Academy-Online Coursework
- Employee of the quarter for 2017-Q2

Associate Scientist at **DPT Laboratories** via Kelly Scientific Resources **Aug '14 – Oct '14**

- Analyzed chemical components using HPLC, GC, UV/Vis, Rheometry, Particle Sizing, Microscopy, and other analytical techniques
- Performed regular analytical laboratory maintenance, including solution preparation, sterilization, lab organization, shipment receiving, etc.
- Maintained cGMP, GDP, and FDA compliance

Graduate Instructional Assistant – Dept. Chemistry and Biochemistry **Jun '13 – Jun '14**

- Received Outstanding Graduate Instructional Assistant Award for the 2013 – 2014 Academic Year
- Responsible for teaching multiple Chemistry laboratory courses for the completion of undergraduate students' course curricula (Students' testimony of performance available upon request)

Student Learning Assistance Center (SLAC) Graduate Research Assistant **Aug '12 – May '13**

- Supervised a staff of over 40 tutors in the Learning Center
- Delivered professional development trainings for the improvement of tutoring services, including trainings held at Student Academic Service Provider (SASP) Conferences
- College Reading & Learning Association Conference (CRLA) Fall 2012 Participant
- Quantitative Tutor – College Reading and Learning Association Master Certified Tutor

SLAC Quantitative Tutor **Jun 2010 – Jul 2012**

- CRLA Levels I, II, and III Master Certified Tutor
- Mathematics and General Sciences Tutor (Physics, Chemistry, Metabolism, etc.) with an emphasis on Biology and Chemistry
- Attended Multiple Leadership Conferences and SASP Trainings