

Juan Agustin Gregorieu

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EDUCATION

Northeastern University, Boston, MA, USA

Master of Science in Computer Science - GPA: 4.00

Sep 2019 – May 2021

Fulbright Scholarship recipient, recognizing academic excellence.

Completed graduate-level coursework including Large-Scale Parallel Data Processing, Information Retrieval, Algorithms, Machine Learning, Software Security, Computer Systems, and Artificial Intelligence.

Notable Projects:

- **Truco AI:** Developed multiple AI agents for the strategic card game “Truco,” including a MiniMax agent with Alpha-Beta Pruning and a Q-Learning agent, demonstrating expertise in classical and reinforcement learning techniques.
- **Distributed K-Means:** Designed and implemented a scalable distributed K-Means clustering algorithm using Scala and Apache Spark, applied to analyze political Twitter datasets for pattern discovery.
- **Hacker News Search Engine:** Enhanced search result relevance by building a Solr-based indexer in Java for Hacker News posts, improving information retrieval efficiency.

Universidad Tecnológica Nacional, Córdoba, Argentina

Mar 2013 – Dec 2017

Bachelor of Engineering in Information Systems Engineering - GPA: 4.00

Completed foundational coursework in Algorithms and Data Structures, Systems Analysis, Software Engineering, Web Development, and Artificial Intelligence.

Notable Project: PriHood

- Developed a hybrid mobile application to automate administrative and operational processes in Argentina’s gated neighborhoods using Ionic, Angular, C#, .NET Core, and MySQL.

EXPERIENCE

EngagedMD, Washington, DC, USA (Remote – Montevideo, Uruguay)

Sep 2021 – Present

Senior Software Engineer & Technical Lead

- Lead technical initiatives on backend and infrastructure projects, actively contributing to sprint grooming, project planning, and guiding small teams to deliver high-quality solutions on time.
- Performed code reviews, candidate interviews, and designed technical evaluations and case studies, contributing to high standards in company recruitment.
- Facilitated team retrospectives to collect actionable feedback, driving continuous process and product quality improvements.
- Built and maintained scalable backend services using Node.js and NestJS, integrating PostgreSQL, GraphQL, Strapi, and AWS cloud technologies.
- Diagnosed and resolved performance bottlenecks by replacing ORM limitations with optimized raw SQL queries and database views, achieving up to a 3× improvement in response times.
- Designed and implemented comprehensive automated testing strategies, including unit tests with Vitest and end-to-end tests using Cypress and Playwright; authored internal guidelines to promote maintainability, parallelization, and reliability.
- Optimized Bitbucket CI/CD pipelines, reducing test and build execution times by over 50%, significantly shortening lead times from code submission to production deployment.
- Conceived and spearheaded development of a Docker Compose-based local environment, dramatically accelerating developer onboarding by enabling rapid, consistent setup of the full application stack.
- Contributed to frontend development using React, TypeScript, Redux Toolkit, and Next.js, ensuring seamless full-stack integration and superior user experience.

- Integrated DocuSign SDKs and webhook services to automate electronic signature workflows, increasing operational efficiency and platform usability.
- Developed an innovative routing algorithm to automate DocuSign envelope creation, streamlining manual processes and enhancing throughput.
- Prototyped a multi-language internationalization system leveraging Strapi and Next.js to extend platform accessibility globally.
- Established standardized Git workflows with clear branching and pull request strategies, improving team collaboration and minimizing integration conflicts.

NDUR, Boston, USA (Remote – Montevideo, Uruguay) Jan 2023 – Present
 Senior Product Engineer **NDUR**, Boston, USA (Remote – Montevideo, Uruguay) Jan 2023 – Present
 Senior Product Engineer

- Worked closely with founders and cross-functional stakeholders to define product vision, translate community needs into technical requirements, and prioritize features for a mobile platform supporting student-athletes across U.S. universities.
- Led the design and implementation of an AI-powered engagement bot embedded in topic-focused *Huddles*, proactively prompting discussion, summarizing conversations, and encouraging student participation to increase retention and community activity.
- Architected and implemented AI-driven chat summarization, classification, and labeling pipelines, enabling automatic generation of structured data from user-generated content for analytics, moderation, and product insights.
- Designed the end-to-end architecture for AI-generated reports, leveraging large language models to transform raw conversational data into actionable summaries used by internal teams for product and community analysis.
- Generated and maintained AI-derived labels and metadata to power analytics dashboards and reporting workflows, improving visibility into engagement patterns, topic trends, and user behavior.
- Developed a community-driven mobile application featuring real-time chat and posts/comments systems using Flutter, FlutterFlow, Firebase, and Swift, ensuring scalability and seamless user experience.
- Built usage analytics pipelines using BigQuery and Looker Studio, combining traditional event tracking with AI-generated signals to provide data-driven insights that inform product strategy.

AroundU, Washington DC, USA May 2021 – Aug 2021
 Software Engineer

- Designed and developed an Android application facilitating student communication on university campuses, focusing on usability and scalability.
- Implemented accessibility features to ensure inclusive, user-friendly design for all users.
- Created and deployed an admin panel connecting promoters and students using React and AWS Amplify, improving operational workflows.

OmnyLaunch (KittsCoaching App), Santa Clara, CA, USA Jan 2021 – May 2021
 Lead Software Engineer

- Led development of a fitness coaching app that tracks workouts, nutrition, progress photos, and facilitates client-coach communication. Technologies used include Flutter and Firebase SDK.
- Built an administrative dashboard enabling coaches to manage programs, communicate with clients, and set goals using ReactJS and Firebase SDK.

Northeastern University, Boston, MA, USA Jan 2021 – May 2021
 Teaching Assistant – Computer Systems, Dr. Ji-Yong Shin
 Teaching Assistant – Information Retrieval, Dr. Ricardo Baeza-Yates Jan 2020 – May 2020

Globant (Disney Studios), Córdoba, Argentina Mar 2018 – Jul 2019
 Front-End Developer

- Maintained and scaled the ESPN.com website, collaborating with global teams.
- Designed a Google Sheets formula to automate presenter selection, reducing demo preparation time by 5 minutes per session.
- Created a CLI tool using Shell scripting to enforce commit message standards and streamline production deployments.
- Trained new hires on project architecture, development standards, and best practices.

Freelance Project – Databoard (Oulton Hospital), Córdoba, Argentina
Full-Stack Developer

May – Jul 2019

- Built a real-time dashboard for tracking patient studies using ReactJS, PostgreSQL, and Node.js/Express.
- Integrated the dashboard with the hospital's internal systems, enhancing operational efficiency and clinic profitability.

InformeMedico.com.ar, Córdoba, Argentina
Full-Stack Developer

Mar 2017 – May 2021

- Developed and maintained diagnostic imaging and administrative systems (PACS, RIS, EHRs) used by healthcare facilities throughout Argentina.
- Automated server monitoring and maintenance tasks using Shell and Python scripting.
- Migrated sensitive patient data securely to cloud storage solutions including AWS S3.
- Created scripts to automate conversion of DICOM imaging files to video formats, optimizing for network constraints.
- Developed a Flutter app enabling physicians to attach audio recordings to patient studies.
- Enhanced server-side image rendering using C++ to reduce client-side processing overhead.
- Authored comprehensive technical documentation for systems and workflows.

ACHIEVEMENTS & CERTIFICATIONS

Two-time Fulbright Scholarship Recipient, awarded for academic excellence and demonstrated leadership.

Universidad Nacional de Córdoba, Córdoba, Argentina
Diploma in Data Science, Artificial Intelligence, and Their Applications in Economics and Business
Apr 2023 – Dec 2023
Advanced coursework focused on applying AI and data science methodologies to real-world economic and business challenges.

Apache Spark with Scala – Hands-On with Big Data
Udemy
Jun 2021

University of Massachusetts – Amherst, Amherst, MA, USA
Machine Learning (Friends of Fulbright Program)
Jan 2018 – Mar 2018
Selected for a competitive Fulbright program to study machine learning and data science as part of an academic exchange initiative.

SKILLS

Programming Languages: Scala, Python, C#, Java, Pascal, JavaScript, C, C++.

Operating Systems: macOS, Windows 10, GNU/Linux (Debian / CentOS).

Big Data/Analytics: Apache Spark, Hadoop MapReduce, Solr, BigQuery, Looker Studio.

Backend Development: Node.js, NestJS, Next.js, Strapi, KeystoneJS, Express, .NET Core, BrookFramework.

Frontend Development: ReactJS, Next.js, Redux Toolkit, Vanilla JS, Bootstrap, Material UI.

Mobile Development: Flutter, Swift.

Cloud & DevOps: AWS (EMR, S3, Lambda), Firebase, DocuSign, Docker, Docker Compose, Bitbucket CI/CD pipelines.

Databases: PostgreSQL, MySQL, MongoDB.

Testing & Automation: Vitest, Cypress, Playwright, Shell scripting, Python automation.

Leadership & Team Management: Technical lead experience, agile planning, hiring and mentoring, retrospectives.