# Omar Hernandez

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## EDUCATION

**Emory University, College of Arts and Sciences** — **Atlanta, GA**
*Bachelor of Science,* Neuroscience and Behavioral Biology | Italian — *Aug. 2016 - May 2021*

**Boston University, Department of Computer Science** — **(Online)**
*Master of Science*, Computer Information Systems | Cybersecurity — *Expected Graduation: Spring 2027*

**Relevant Coursework:** Analytics and Data Visualization with R, Probability and Statistics, Business Data Communications & Networks, Operating Systems, Network Architecture Modeling, Database Management Systems, Information Assurance and Security

## SKILLS

**Languages:** Python, Java, Bash, R, SQL, HTML5, CSS3, JavaScript/TypeScript, UNIX/Linux
**Cloud & DevOps:** AWS (CloudFormation, S3, Lambda), Docker, Vercel, Apache Airflow
**Frameworks & Tools:** Flask, React, PostgreSQL, MySQL, Selenium, Git, Jupyter, Cursor IDE, Claude, OpenAI API

## RELEVANT EXPERIENCE

**Debt Consultants Group** — **Downtown Miami, FL**
*Software Engineer / Product Manager* — *December 2024 - April 2025*

- **Designed and deployed** a scalable Python (VADER, NLTK) pipeline to ingest, clean, and model large volumes of raw SMS data, **transforming unstructured text** into production-ready datasets and **surfacing 30,000+ previously untracked client leads**
- **Engineered** a cloud-native data infrastructure (AWS S3, PostgreSQL, and Power BI) **orchestrated with Apache Airflow** and served via a **Flask-based analytics interface**, enabling real time performance dashboards for C-suite executives
- **Built** an **end-to-end Python automation framework** linking **Selenium-based extraction** (Leadtrac, EPPS, and Excel) with templated **.docx generation**, reducing ledger creation time from **1 hour to 1 minute**
- **Implemented TCPA-compliant data segmentation** by embedding **DNC filtering** into the SMS pipeline and routing restricted contacts to secure, audit-only storage for regulatory integrity

**Uhealth | Sylvester Comprehensive Cancer Center** — **Miami, FL**
*Data Engineer* — *Aug. 2023 - Aug. 2024*

- **Orchestrated** a **10,000+ sample tumor database**, supporting **computer-vision-driven** diagnostics and cross-departmental research
- **Automated** ingestion, conversion, and compression workflows for **20+ terabytes (TB)** of Whole Slide Imaging data (.vsi, .svs, exFAT-based archives) using cloud-based pipelines, optimizing distribution speed and **preserving image fidelity**
- **Configured** and **administered secure user environments** for **300+ clinical users**, strengthening data integrity, access control, and HIPAA-aligned compliance
- **Standardized metadata structures** and **storage protocols** to ensure reproducibility, interoperability, and long-term data consistency

**National Institute of Health | VA Medical Center** — **North Druid Hills, GA**
*Neuroimaging Analyst* — *Jan. 2019 - June 2021*

- **Optimized** predictive machine learning models (scikit-learn) on longitudinal fMRI data to analyze **motor network recovery patterns** in 40+ stroke patients, improving classification accuracy by ~15%
- **Developed** custom **UNIX shell scripts (awk, grep, sed)** to **parse and structure behavioral log data**, automating **feature extraction** and **reducing preprocessing time by 30%**
- **Labeled** signal components and **trained logistic regression classifiers** to **separate neural activity from noise** (motion, cardiac, physiological), enhancing fMRI data reliability and preprocessing accuracy

**Emory University School of Medicine** — **Atlanta, GA**
*Neuroimaging Research Assistant* — *Jan. 2018 - Jan. 2019*

- **Segmented stroke** and **TBI lesions** at **voxel-level precision** using **ITK-SNAP**, to create **labeled datasets** for **supervised recovery-prediction models**
- Streamlined **ETL workflows** for **250 GB+ neuroimaging data**, optimizing file conversion, organization, and batch processing
- Transformed **DICOM to NIfTI** using **Bash** and **FSL utilities**, ensuring consistent voxel dimensions and metadata for **downstream fMRI analysis reproducibility**

## PROJECTS

*Software Engineer (Academic Project, Boston University M.S.)* — *Sept. 2024 - Dec. 2024*

- Assembled a **University Scheduling System** using **MySQL and phpMyAdmin** with **optimized indexing** and **foreign-key constraints** for efficient database operations and user-facing query management
- Programmed a **modular Java banking application** leveraging **OOP principles** for scalable, secure **client-side UX**