# **Gabriel Urbaitis**

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#### **EDUCATION**

## **University of New Mexico**

Bachelor Of Science in Computer Science, Class of 2018

- GPA: 3.50
- Minor Mathematics

#### Honors

UNM Regents Scholarship

Master of Science in Computer Science, in progress, December 2025

• GPA: 4.16

• Focus: Machine Learning

### WORK EXPERIENCE

## **University of New Mexico**

05/17/2021 - Present

#### **COSMIAC Research Center (UNM)**

Programmer Analyst III - (Albuquerque, NM)

01/01/2025 - Present

- Passed AZ-900 Azure Fundamentals Certification
- Developed secure Angular-based document viewer application emTRUTH HCP, featuring protected PDF rendering, dynamic metadata overlays (e.g., "Shared By", "Expires"), and backend services for setting expiration dates and disabling download/print access in Node.js.
- Passed CLF-C02 AWS Certified Cloud Practitioner Certification
- Integrated Okta SAML authentication with AWS GovCloud WorkSpaces, configuring identity federation with Active Directory; troubleshot domain join errors and validated RADIUS MFA integration by confirming UDP request forwarding between Okta and the RADIUS server.
- Implemented a PyTorch-based JDCNN spectrogram classifier with configurable additive white Gaussian noise (AWGN) augmentation and automated generation of 13 composite SNR datasets (-10 dB to 40 dB), using consistent train/validation splits and reusable caching.
- Built a LightGBM-based GNSS spoofing detection model from u-blox UBX/NMEA logs, including full feature extraction, missing-value imputation, categorical encoding, and in-memory preprocessing for real-time inference. Integrated and tested the model on COSMIAC's Linux-based PIGEON platform for live data handling and LoRa transmission.

*Programmer Analyst I - (Albuquerque, NM)* 

09/01/2024 - 12/31/2024

- Designed a logo for RAPID T-rEX program, a collaboration between COSMIAC, AFRL and USSF SWAC
- Studied for Azure Fundamentals Certification (AZ-900)

### Early Childhood Services Center (UNM)

05/17/2021 - 12/31/2024

*Programmer Analyst I - (Albuquerque, NM)* 

- Created ECSC Intranet Inventory module, automated conversion of ownership records of Computers and Phones from existing Excel document into SQL database and displayed them in the Intranet using Laravel Nova to provide CRUD operations on each record to ECSC users.
- Implemented file uploading, editing, deleting and custom file storage for ECSC Intranet Document Repository module
- Made improvements to the admin platform of the NewMexicoKids.org childcare referral search portal, including creating a notes functionality for childcare providers, and creating five new provider/client attributes with the functionality to create, edit, delete, destroy, and restore, and view in tables with all associated information in columns.
- Assisted in search portal maintenance, upgrading to PHP 8.1, and rewriting existing code base in Vue, Inertia and Nova
- Automated parsing training event form submissions into ics for statewide calendar supporting recurring dates and times.
- Created Gravity forms and workflows for data collection and administrative task automation, provided support and wrote documentation to walk teammates through the application

**Quintrix Solutions** 

03/31/2020 - 04/02/2021

*Microsoft Dynamics CRM Developer – (Remote)* 

- Wrote plugins in C# updating Dynamics 365 objects from JSON files in employee training for MB-200 certification
- Worked with Cognizant's Microsoft Business Group team to catalog Dynamics taxonomies for Accounts, Contacts, Leads and Opportunities as well as the Opportunity BPF, all active business processes, workflows and business rules.

**Atos Syntel** 04/24/2019 –11/27/2019

Associate Consultant – (Phoenix, AZ; Portland, OR)

- Demonstrated competency in SQL, PL/SQL, Java, OOP, Collections, Threading, HTML, CSS and BootStrap in the Employee Training Program
- Developed Employee Submission forms and PDF viewer in Java, HTML, ReactJS and SpringBoot
- Wrote Salesforce Apex code that used Structure Object Querying Language queries on employee standard salesforce objects and custom "seat" objects to create 3 sections in lightning: "Open", "Pending Approval" and "Allocated" for employee seating arrangement.

### **COSMIAC Research Center (UNM)**

06/28/2016 - 05/12/2018

Research Engineer – (Albuquerque, NM)

- As a Full Stack Developer, created a JavaFX application for displaying single event upsets in memories of radiation hardened circuits in the Radiation Hardened Electronic Memory Experiment (RHEME).
- Created a custom file reader for parsing terabyte sized RHEME packet binaries in comma separated values files with date and time, and corresponding upset memory locations.
- Assisted designing and implementing a data acquisition system to interface and test the effects of ionizing radiation on Analog to Digital Converters (ADCs) and Digital to Analog Converters (DACs) in Maxim's MAX1257 and MAX1258 microchips.
- Integrated a data acquisition system consisting of an integrated circuit board, digital multimeter, and power supply with LabView. Assisted in writing code to iterate through a power supply, converting a signal to a digital reading and recording the value for an ADCs, and inputting a digital value to DACs, performing the conversion and reading the multimeter value on the output.

#### **SKILLS**

- Programming languages: Java, JavaFX, C, C#, PHP, JavaScript, Scheme, Haskell, Python
- Computing environments: Visual Studio, IntelliJ, Eclipse, Matlab, PHP Storm, Sublime
- Web Technologies: Laravel (PHP Framework), Nova (Admin Panel), Vue (JS Framework), Inertia (JS lib)

#### **PUBLICATIONS**

Total dose testing of advanced mixed signal ADC/DAC microcircuits

Single Event Upset Results from the Radiation Hardened Electronic Memory Experiment on the International Space Station