

# KELLY T. TON

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## WORK EXPERIENCE

### Software and Data Engineer Intern || SMX

Jun 2024 – Aug 2024

- Delivered data engineering and software development solutions for the GOST Team.
- Developed sentiment analysis pipelines using spaCy, Regex, and Hugging Face's RoBERTa in AWS WorkSpace, leveraging PostgreSQL for data storage and querying.
- Conducted data collection, preprocessing, geospatial plotting, and visualization using Grafana, transforming raw data into actionable insights.
- Presented findings to senior executives, including the CEO, resulting in actionable insights and strategy adjustments.

## EDUCATION

### University of South Florida | Tampa, FL

Expected Graduation May 2025

Bachelor of Science in Computer Science

Cumulative GPA: 3.88

**Relevant Coursework:** Software Engineering, Analysis of Algorithms, OS, Database Design

**Certifications & Training:** Global Tech Programs - Intercultural Skills, USF - Web Development

Program, Web Development with HTML, CSS & Bootstrap, Web Development with JavaScript & APIs

## SKILLS

<b>Programming Languages:</b>	Python, C/C++, Java, JavaScript, HTML/CSS
<b>Frameworks/Tools:</b>	ReactJS, Bootstrap, Flask, SQLAlchemy, Scikit-learn, Figma, Hadoop
<b>Cloud &amp; OS:</b>	Linux, macOS, Windows 11, Amazon WorkSpaces
<b>Databases:</b>	SQL (PostgreSQL, SQLite)
<b>Version Control:</b>	Git (GitHub, GitLab)
<b>Methodologies:</b>	Agile, Scrum, UML

## PROJECTS

### EduPortal | *SQLite, ReactJS, MUI, Python, Flask*

- Engineered a scalable, data-intensive software system to manage academic data for students, instructors, advisors, and staff, adhering to strict business rules and data integrity constraints.
- Designed and implemented a normalized SQLite database to handle user and academic data, ensuring referential integrity and enforcing uniqueness constraints.
- Developed a responsive, intuitive ReactJS front-end with MUI, enhancing usability and accessibility.
- Created secure Flask APIs for seamless backend integration, featuring authentication, role-based authorization, and comprehensive activity logging.

### RUSH: Rapid Unix SHell | *C, Linux*

- Engineered a custom Unix shell to execute built-in (exit, cd, path) and external commands, leveraging child processes for parallel execution while ensuring robust input parsing for command execution.
- Implemented output redirection to reroute command results to files, ensuring seamless file creation, overwriting, and error handling.

### Facial Recognition and Text Classification | *TensorFlow, Keras, scikit-learn, Matplotlib, Seaborn*

- Implemented LeNet-5 CNN on the Olivetti faces dataset, benchmarking against PCA, LDA, and SVM models to evaluate performance across various training/testing splits (20%, 50%, 80%).
- Applied data augmentation (rotations, flips, brightness adjustments) to improve model generalization.
- Developed an RNN-based classifier, using data augmentation (word shuffling and synonym replacement) and evaluating performance on a reduced dataset. Explored with various RNN setups.
- Visualized results with CMC curves, confusion matrices, and training/validation plots.