

# James Touthang

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## Education

### Oklahoma State University, Stillwater, OK

Bachelor of Science in Computer Engineering

Graduation: May 2017

GPA: 3.2

### Oral Roberts University, Tulsa, OK

Bachelor of Arts in Biomedical Chemistry, Pre-Med

August 2012 – December 2013

GPA: 3.7

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## Technical Skills

**Languages, Frameworks and Services:** Angular, Typescript, JavaScript, Bootstrap, HTML, CSS, .NET, C#, SQL, Python, Azure DevOps, Jira, Node.js, R, Java, MATLAB, AWS, C++

**Programs:** Visual Studio, VS Code, InDesign, Photoshop CS6, AutoCad, Solidworks, Matlab, PSPICE, Altera Prime Edition and Xilinx, GSuite, Office 365, Modalism, Magic, Sue, IRSIM, GitHub, RedCap, PsychoPy, GitLab

**Operating Systems:** Windows, Mac, Linux, Unix

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## Technical Experience

### Software Engineer IV: FlightSafety International Inc.

June 2024 - Present

- Designed, built and maintain a frontend Angular web application with a .NET C# middleware and C++ backend for simulation control through unit tests, code reviews and software best practices.
- Participating in Agile methodologies such as daily scrum, sprint planning and reviews with the applications team.
- Maintain a .NET Framework C# windows forms quality test guide desktop application used to verify simulators to meet aircraft specifications with government organization with Federal Aviation Administration and European Union Aviation Safety Agency.
- Setup initial CI/CD pipeline in Azure DevOps to test, build and package software to allow for easier install.
- Update and maintain wiki documentation to guide other engineers and software integrators to install our developed application.

### Software Engineer III: FlightSafety International Inc.

August 2022 – June 2024

- Designed and built front end angular web application for creating, updating and deleting simulation configuration loads using a .NET C# backend and Entity Framework Core as ORM to an SQL database.
- Maintained .NET C# desktop application by fixing bugs and features requests from other departments that utilize the application.
- Created CI/CD pipeline to run Static Application Security Test on .NET C# desktop application.

### Software Engineer: Laureate Institute for Brain Research

June 2018 – August 2022

- Design and built an online web application called Tulsa Life Chart with JavaScript front end and Node.js backend to collect PII and various relevant information regarding participants' life and mental health history stored in an SQL database.
- Wrote an object-oriented organization script in Python to automate and convert terabytes of MRI DICOM data into a standardized BIDS format on all new studies in the institute.
- Built a web application platform in Node.js for online psychological task paradigms using the PsychoPy framework used for local and remote online behavioral studies on Amazon Mechanical Turk.
- Created CI/CD pipeline to test, build and publish web application changes using GitHub actions and source control with Gitlab.
- Setup and integrate psychological experiments to collect eye blinks, using BIOPAC system and electrostatic shock device.
- Co-authoring 20 brain research papers in collaboration with researchers within and outside of the institute.

### Research Intern: Laureate Institute for Brain Research

August 2017 – June 2018

- Extracting data from generated onsite tasks used for analyzing correlation matrix to help with decision making.
- Created plots in R from Life Chart redcap database using RedCap API to show correlation between different reported events and overall life periods, along with different PROMIS and self-reported measures.
- Wrote a python script to slice skin conductance data using a FFT over sliding window.
- Created a C# backend API to upload data gathered from NIH toolbox iPad app used by employees and researchers in the institute.

### Student Intern: New York Genome Center

June 2016 – August 2016

- Generate list of information with a python script from a PostgreSQL database to output 635 user's information.
  - Gathering public information from the Personal Genome Project and pipe through an imputation pipeline through horizontal scaling using Amazon AWS SQS service and EC2 instances to process 1.8TB of data and published the data for the scientific community to utilize.
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## Leadership Experience

### Peniel Baptist Church, Technical & Media Director

January 2022 – Present

- Responsible for purchasing Audio, Video and Network Equipment for the entire campus.
- Setting up network infrastructure for guests and audio Dante networking to route audio channels to use with live broadcast.
- Training and mentoring volunteers using audio and video equipment.
- Directing program and preparing visuals each Sunday as well as mixing the front of house audio.

### Etta Kappa Nu, Treasurer

August – December 2016

- Filling out disbursements and submitting to the organization account.
  - Collaborating with other members to seek solutions for higher attendance.
  - Tutoring students taking electrical science and network analysis.
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## Award and Memberships

### Bacon Family Scholarship

August 2016 – May 2017

### Dean's Honor Roll

January 2014 – May 2015