Elijah Soria

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TECHNICAL/INDUSTRY WORK EXPERIENCE

Google Mar. 2017- Present
Senior Software Engineer *San Francisco, CA*

- (Jul. '21 - Present) Full-stack engineer on Google Search, focusing on designing, implementing, and analyzing new user-facing features on google.com. Tech lead for a group of 5 engineers on a redesign of the Google Search header on desktop clients: `https://bit.ly/3E7dqFa`
- (Apr. '19 - Jul. '21) Full-stack engineer for the Subscribe with Google (SwG) project. Work includes being the lead engineer on the AMP client-side content encryption project and SwG Google Search integration: `https://bit.ly/3Cq19dv`
- (Nov. '17 - Apr. '19) Lead machine learning model developer for disabling egregious ads from Google Search. Trained and launched the first TFX-based machine learning model to be served globally in Google Search Ads, a deep neural network using transfer learned text features. Contributed in creating a C++ framework for automatically composing advertisements from Google Search Ads' headlines using machine learning and general heuristics.
- (June '20 - Present) Classroom instructor for the Google Computer Science Summer Institute and Tech Exchange programs.
- Promoted from Software Engineer III to Senior Software Engineer Oct. 2020. Promoted from Software Engineer II to Software Engineer III in Oct. 2018. Promoted from Software Engineer I to Software Engineer II in Oct. 2017.
- Have written and deployed production code in the following languages: C++, Java, Python, Javascript, Go, and SQL. Prior experience in Google Cloud integration, Flume, Tensorflow, and TFX.

First Derm by iDoc24 Aug. 2016- Feb. 2017
Data Analyst Intern *Berkeley, CA*

- Independent researcher performing data analytics on user data, updating, analyzing, and cleaning SQL datasets, and writing reports and presentations on findings that is used to pitch the company's products to potential investors.
- Oversaw the organization of First Derm's database, which included creating .net applications for use by the First Derm team to supplement data input.

Lindsay Wildlife Experience June 2015- Aug. 2015
iOS App Developer *Walnut Creek, CA*

- Developing and editing the iOS application for the Lindsay Wildlife Experience, which included redesigning the user interface, implementing more efficient data storage methods, and working under the guidelines of iOS 8 to ensure backwards compatibility. The Lindsay Wildlife Experience app is written in Objective-C and is available on the iOS App Store.

My Neighborhood Tutor Aug. 2015- July 2016
Business Analyst *Lafayette, CA*

- Researched revenue streams from different sources of advertisement, analyzed trends in sales from different markets using multiple data sources, and presented data and findings in a formal and succinct manner including technical reports and through the mapping software BatchGeo. I used Excel extensively throughout this project.

Musical Offering Cafe June 2014- Dec. 2016
Food Service Worker & Cashier *Berkeley, CA*

· Serviced the customers in a professional manner, prepared food and drink items, organized and restocked inventory, provided a safe and clean environment for food service, and operated cash register.

ACADEMIC WORK EXPERIENCE

University of Maryland June 2016- Aug. 2016
Undergraduate Researcher of Computer Science *College Park, MD*

· Researcher of computer science as a part of the NSF-funded REU program entitled "Combinatorics and Algorithms for Real Problems" under the direction of Dr. Jonathan Katz. The objective of the research program was to learn, implement, attack, and develop new methods for improving a cryptographic method known as the Algebraic Eraser, whilst gaining experience working in a professional academic setting.

Saint Mary′s College of California June 2015- Aug. 2015
Undergraduate Researcher of Mathematics *Moraga, CA*

· Researched generating matrices for certain recursive sequences as a part of the Saint Mary′s School of Science summer research program of 2015 under the direction of Dr. Kristen Beck. The resulting paper entitled "Some properties of generalized k-Pell sequences", which can be found at `http://arxiv.org/abs/1508.03035`, has been published in the Pi Mu Epsilon Journal of Mathematics, Vol. 14, No. 3, pp. 205-217, 2015.

Saint Mary′s College of California Jan. 2015- May 2015, Aug. 2016 - Dec. 2016
Tutorial Leader *Moraga, CA*

· Supplementing material taught in class to a small group of students, constructing different teaching methods to display material in multiple ways that will help students thoroughly understand the mathematical concepts behind each problem, and administering and grading of weekly quizzes and homework for two courses: Pre-calculus and Mathematical Readiness. Tutorial is a required session for those enrolled in each course, with tutorial coursework and attendance going towards the students' overall class grade.

Saint Mary′s College of California Jan. 2016- May 2016
Seminar Student Co-Leader *Moraga, CA*

· Selected as a student co-leader in the Saint Mary's College Seminar Department. Collaborated with a tenured professor to co-facilitate discussions on different historical texts for third year undergraduate students, which included coming up with daily outlines for discussion goals, discuss the effectiveness of certain facilitation techniques, and evaluate students participation within discussion.

My Neighborhood Tutor Aug. 2015- July 2016
Mathematics Tutor *Lafayette, CA*

· Tutored multiple levels of mathematics from high school through college in a one-on-one format, ensuring that the tutee has a well-rounded understanding of the material taught in class, delivered mathematical concepts in multiple aspects, depending on the tutee's learning habits, and developed a culture of learning with tutee's.

Saint Mary′s College of California Sept. 2014- Dec. 2014
Calculus I Course Grader *Moraga, CA*

· Graded students′ weekly homework, completed an answer sheet for individual assignments, worked with the course professor to ensure consistent grading that fulfills the standards of the assignment and course requirements.

Iowa State University Jan. 2014- May 2014
Calculus II Tutor *Ames, IA*

· Taught and supplemented material taught in class to a small group of students, ensured that tutee′s needs are filled and questions are answered correctly, formulated alternative teaching methods that enables students to understand the information efficiently, and created a lesson plan for each session.

EDUCATION

Saint Mary′s College of California *Fall 2014- Dec. 2016*
B.S. in Mathematics, Computer Science specialization
Senior Thesis: *Matrix Groups and their Lie Algebras*, `https://bit.ly/3LXPsOu`
Overall GPA: 3.901. Graduated Summa Cum Laude.

Iowa State University *Fall 2013- Spring 2014*
Sophomore classification, Pursued B.S. in Mathematics & Computer Science
Overall GPA: 3.88

PUBLICATIONS

Some properties of generalized k-Pell sequences
Pi Mu Epsilon Journal of Mathematics, Vol. 14, No. 3, pp. 205-217, 2015.

· The purpose of this paper is twofold; (1) to develop several identities for the Generalized k-Pell sequence (including those of Binet, Catalan, Cassini, and d'Ocagne), and (2) to study applications of tridiagonal generating matrices for the k-Pell and Generalized k-Pell sequences.
ArXiv Link: `http://arxiv.org/abs/1508.03035`

PRESENTATIONS

– Some properties of generalized k-Pell sequences Jan. 2016
Joint Mathematics Meeting Undergraduate Poster Session *Seattle, WA*

– Some properties of generalized k-Pell sequences Feb. 2016
MAA Golden Section Poster Session *University of California – Davis*

UNDERGRADUATE COURSEWORK

Topology	Programming I & II
Algebraic Coding Theory	Computation and Complexity
Analysis of Algorithms	Intro to Upper Division Math
Linear Algebra	Combinatorics & Discrete Math
Advanced Calculus	Calculus I, II, & III
Abstract Algebra	Intro to Probability & Statistics

ACCOMPLISHMENTS, VOLUNTEER, AND HONORS

Prior volunteer tutor for the Oakland International High School.

Sole recipient of Pi Mu Epsilon's 2015 Richard V. Andree Award, given to the author of the paper, written by an undergraduate student, that has been judged the most outstanding to appear in the Pi Mu Epsilon Journal in the past year.

Sole recipient of 2015 Joseph P. McKenna Award for undergraduate researchers in the Saint Mary's College School of Science Summer Research Program. Awarded to the student whose research project and presentation was judged the most outstanding.

Recipient of Saint Mary′s College Honors at Entrance Scholarship for entering upperclassmen displaying high academic achievements.

Dean's List for six consecutive semesters, which encompasses all my time at an undergraduate institution.

President of the Saint Mary′s College Math and Physics Club.

Volunteered at Thousand Oaks Elementary School to help conduct a Story Bridge performance about bullying and acceptance.

Recipient of Iowa State′s prestigious George Washington Carver scholarship awarded to students displaying leadership and academic success.

Member of the Iowa State Student Union Board, an organization whose goal is to put on social events for the Iowa State community.

DJ for Saint Mary's College of California Radio (KSMC Moraga).