

Companies:

- SWE - Amazon
- SWE - PagerDuty
- SWE - Salesforce
- SWE - Roblox
- Consulting - Agile Rainmakers

LaunchDeck

LinkedIn: [linkedin.com/in/company/swatlaunchdeck](https://www.linkedin.com/in/company/swatlaunchdeck)

Mobile: (xxx)-xxx-xxxx

Email: swatlaunchdeck@gmail.com

Github: github.com/LaunchDeck

EDUCATION

Swarthmore College

Swarthmore, PA

B.S. in Computer Science & B.S. in Applied Mathematics | GPA: 4.0/4.0

September 2019 – May 2023

CodePath

Remote

iOS Mobile Development Course

September 2020 – October 2020

- Project based iOS mobile development course on the fundamentals of Xcode, Swift, databases, and APIs.
- Utilized the Twitter API to create Bitter, a Twitter clone app that allows users to browse and create tweets.
- Employed the Movie Database API to create Flix, an app that allows users to browse through movies.
- Utilized Parse, a backend service, to create Parstagram, an Instagram clone app that allows users to create posts.

SKILLS

- **Languages:** Python, Java, Swift, SwiftUI, C++, C, Javascript, HTML, CSS, Spanish
- **Technologies:** AWS Services, Django, Git/Github, Linux, Valgrind, GDB, Xcode, JupyterLab, Arduino, Vim, LaTeX
- **Coursework:** Software Engineering, Computer Data Structures and Algorithms, Advanced Algorithms, Computer Systems, Computer Vision, Linear Algebra, Discrete Mathematics, Numerical Methods for Engineering Applications

TECHNICAL EXPERIENCE

Amazon Web Services Service Catalog

Seattle, WA

Software Development Engineer Intern

June 2021 – August 2021

- Designing, architecting, and developing a billing reconciliation system that aggregates API usage volume from three sources and compares the volumes against each other, alarming Service Catalog Software Engineers once certain thresholds are reached.
- Utilizing Java, Python, AWS Lambda, Amazon DynamoDB, Amazon Athena, AWS Step Functions, and Amazon S3 to store, process, and analyze data for the reconciliation process.
- Utilizing Amazon Athena to create a reporting system that alarms Service Catalog engineers once thresholds are reached.

Swarthmore College Computer Society

Swarthmore, PA

Member

March 2020 – Present

- Assisted in the day-to-day support and maintenance of SCCS services, which are actively used by 1000+ Swarthmore College students to calculate their GPA, schedule courses, and maintain newsletters.
- Maintaining our codebase and applications via our linux server, primarily using Django, Apollo, and Python to maintain our web services.

PROFESSIONAL AND LEADERSHIP EXPERIENCE

Swarthmore LaunchDeck

Swarthmore, PA

Technical Lead and Vice President

September 2020 – Present

- Revamped the club after being inactive and grew it to 150+ members in one year.
- Hosted 8 beginner iOS mobile development workshops covering Xcode basics, Swift fundamentals, databases, and APIs to 20+ members.
- Organized and held 10+ LaunchTalk speaker events with venture capitalists, product managers, software engineers, marketers, and startup founders from across the United States in order to expose members to the variety of careers in tech.

Thiebaut Method

Palo Alto, CA

Program Management Intern

September 2020 – January 2021

- Worked alongside the CEO and Program Manager to transition the non-profit's learning management system (LMS) onto Google Classroom.
- Created Google admin users for the non-profit's 50 volunteers and students, managed user permissions, and created a custom google sheets script that automatically creates users as new volunteers/students are onboarded.
- Supervised the Google Classroom onboarding process for all 50 of our volunteers by creating their classroom learning environment and populating it with helpful onboarding materials and docs.

PERSONAL PROJECTS

Panoramic Image Stitcher[Github]

Python, OpenCV, NumPy

- Created an image stitcher that takes an mp4 video as input and extracts a user-determined number of frames from the video. The stitcher then utilizes ORB keypoint and feature detection, brute force KNN description matching, and perspective warping to stitch together the frames extracted from the input video.

Companies:

- SWE - Microsoft
- SWE - Palantir
- SWE - IMC Financial Markets
- SWE - Vanguard

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EDUCATION

Swarthmore College

Swarthmore, PA

B.S. in Computer Science & B.A. in Statistics (with a strong interest in Economics) September 2019 – May 2023

- **Relevant Coursework:** Machine Learning, Data Structures & Algorithms, Computer Systems, Statistical Methods I & II, Intermediate Econometrics, Linear Algebra, Multivariate Calculus, Discrete Math, Probability Theory
- **GPA:** 3.95/4.0

WORK EXPERIENCE

The Vanguard Group

Malvern, PA

Software Development Engineer Intern for Global Investment & Financial Systems June 2021 – August 2021

- Built a cloud-based automated data ingestion system that transfers over 3 million global-reference data points daily, collaborating on a team of four interns
- Managed a team of seven interns, as the tech-ops champion, on a project where we created a team-building chat games web app which will be used at Vanguard during virtual team-building meetings
- Extensively trained myself on AWS, putting a strong focus on architecture reliability, efficiency, and cost optimization

Swarthmore Economics Department

Swarthmore, PA

Research Assistant & Microeconomics Teaching Assistant October 2019 – Present

- Facilitating biweekly behavioral economics experiments under Dr. Bhanot on individual risk taking in regard to COVID-19 & recruiting hundreds of participants via Amazon MTurk and Qualtrics to help partake in the experiments
- Assisting over 100 Intermediate Microeconomics students navigate through course lectures, problem sets, and general theory

PROFESSIONAL AND LEADERSHIP EXPERIENCE

Swarthmore College Computer Society

Swarthmore, PA

Applications Engineer

March 2021 – Present

- Developing maintaining services for 1,600 students at Swarthmore College, such as Cygnet, Reserved Students Digest, GPA Calculator, Course Scheduler, and Airpool
- Maintaining our codebase and applications via our linux server and coordinating improvements and updates with our team, primarily using Django and Apollo for web development

Clarus Capital

Swarthmore, PA

Portfolio Manager for the Swarthmore Investing Group

April 2020 – Present

- Managing the club's funds by analyzing corporate financials and generating stock pitches for over 15 securities with high growth potential to ensure steady and strong returns of about 60% in the last two years (beating the SP 500 by 20%)
- Researching target securities in our portfolio and producing a weekly report with suggestions and upcoming target prices based off of analyst predictions and DCFs, Comparable Organizations, and Precedent Transactions

PERSONAL PROJECTS

Face Mask Classification

Boston, MA

Image Classification Deep Learning Project

July 2021 – Present

- Implemented a Tensorflow Keras Adam optimizer with a Sparse Categorical Crossentropy loss function to train and test our model which classifies whether an individual is wearing a mask
- Enhanced the model's accuracy and prevented over-fitting via image augmentation and training with 11 epochs
- Tested the model against an independent test set, yielding an accuracy of over 79%

California Housing Prices

Swarthmore, PA

Personal Machine Learning

July 2021 – Present

- Utilized SciKit to develop a end-to-end supervised multivariate regression ML project to analyze a housing dataset with multiple predictors: ocean distance, square footage, owner income, bedrooms, and age with 80% accuracy
- Experimented with decision trees and random forest regressions to further enhance the ML model's precision

Fake News Detector

Virtual Hackathon

Hack the Northeast Project Submission

December 2020 – February 2021

- Collaborated in a team of 3 to develop a linear SVC ML model to predict an article's credibility with 96% precision
- Applied the natural language toolkit to extract relevant words for an optimal prediction

SKILLS

- **Languages:** Python, C++, Java, R, LaTeX, HTML, CSS, JSON, YAML
- **Technologies:** Scikit-learn, Jupyter, NumPy, Tensorflow, AWS Lambda, Amazon S3, Amazon DynamoDB, Keras, Git/Github, Linux, Valgrind, GDB

Companies:

- SWE - Microsoft
- SWE - Amazon

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EDUCATION

Swarthmore College

Swarthmore, PA

Major: Computer Science, Statistics

- **Major GPA:** 3.93
- GPA: 3.79
- Relevant Coursework: Data Structures Algorithms, Intro to Computer Systems, Programming Language Theory, Compilers, Computer Vision, Probability Theory, Discrete Math, Linear Algebra, Multivariable Calculus.

TECHNICAL EXPERIENCE

Google Summer of Code 2021 @ Kanidm

Remote

Student Developer

May 2021 – Aug. 2021

- Integrated a custom logger to help users effortlessly identify bottlenecks and trace execution of many concurrent web requests in Rust, with mentorship from senior software engineers at SUSE.
- Actively engaged and contributed towards open source community.
- Maintained daily blog at LaunchDeck.github.io.

Shine Technologies Inc.

Portland, OR

Software and Integrated Systems Leader

Aug. 2020 – Jan. 2021

- Used C++ / JavaScript on Arduino to build a web interface for live sensor readings for a rechargeable battery.

PERSONAL PROJECTS

Quantum Python [Github]

C

- Created a Python extension with C for computing matrix operations to build performant neural networks from 100% my own code.
- **Challenges: Making the library usable on any computer.**

Compiler [Course project—not publicly available]

OCaml

- Developed a compiler for a dynamically typed functional language supporting HOF's, tuples, currying, and tail-call optimization.
- **Challenges: Debugging assembly, sys calls, remote collaboration.**

Panoramic Stitching [Github]

Python

- Used OpenCV to stitch extensively large panoramas from video.
- **Challenges: Debugging algorithm, remote collaboration.**

SKILLS

- High proficiency: Rust, Python, C, C++
- Moderate proficiency: Git, Arduino, OCaml, Java.