

Daniel Van Der Maden

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EDUCATION

University of California, Berkeley

Berkeley, CA

B.A. Computer Science – GPA: 3.68/4.00

December 2019 (Expected)

◦ Areas of interest: Natural Language Processing, Human-Computer Interaction, and Artificial Intelligence.

Irvine Valley College

Irvine, CA

Transferred – GPA: 3.92/4.00

May 2017

EXPERIENCE

Microsemi

Aliso Viejo, CA

Software Engineering Intern – Frequency and Timing Division

May 2018 – August 2018

- Part of a team that worked on a modernized eLoran (radio navigation and data) system, which could function as a self-contained backup of a Global Navigation Satellite System (E.g: GPS).
- Implemented multiple proprietary signal schemes and created an API to interface all of them with a custom transmission timer.
- Shortened scheme implementation time by creating data collection and development tools for a custom transmission timer.

EECS Department, UC Berkeley

Berkeley, CA

Tutor – Self-Paced Center

January 2019 – May 2019

- Held office hours for students learning C, C++, Java and Python. Also graded projects, quizzes and final exams.
- Helped students debug their projects and gave feedback that encouraged industry-ready practices.

Academic Intern – Structure and Interpretation of Computer Programs Course

August 2018 – December 2018

- Assisted course staff during lab sessions by conducting lab checkoffs and answering questions regarding lab content.
- Provided guidance/help on homeworks and projects for students that came to office hours.

"Computer Science Mentors" Student Organization, UC Berkeley

Berkeley, CA

Mentor – Designing Information Devices and Systems I

January 2019 – May 2019

- Held a supplemental 1.5 hour discussion section each week, which helped students solidify core EECS concepts.
- Mentored a cohort of five students throughout the semester and helped run large midterm review sessions.

J-Sei Community Center

Emeryville, CA

Technology Consultant for Seniors

September 2017 – December 2017

- Helped advise the elderly a verity of tech safety topics such as internet privacy, scam detection, and malware protection.

NOTABLE PROJECTS

Full detailed list (with repo links) can be found on my website

Easy Seq2Seq Chatbot – Personal Project

- A chatbot that is implemented using a sequence to sequence model with an easy way to define training and model parameters.
- It features a caching system, saving and loading models, interrupt recovery, memory efficient training, and multiple data filters.

Approximate Solver for a NP-Hard Problem – Efficient Algorithms Course Project

- A polynomial time approximate solver that uses a greedy algorithm with various heuristics (each is considered, best is chosen).
- Yielded solutions that were in the top 10% of all approximations in the course.

My Personal Website – Personal Project

- A website that I created from scratch. It uses the Bootstrap and jQuery to handle most of the styling and interactive components.

Concurrent Cached File Server – Machine Structures Course Project

- A file server (written in Golang) that features a cache which can efficiently handle thousands of concurrent file requests.

Coreference Annotator – Natural Language Processing Course Project

- Annotates the antecedent for each pronoun in a given dataset using a Logistic Regression model. 71% accuracy on test data.

SKILLS AND COURSEWORK

Courses: Database Systems (IP), UI/UX Design (IP), Computer Security (IP), Efficient Algorithms, Intro to Artificial Intelligence, Natural Language Processing, Intro to Linguistics, Machine Structures, Data Structures, Structure & Interpretation of Programs, Designing Information Devices, Linear Algebra & Differential Equations, Discrete Math & Probability Theory.

Programming Languages: Python, Java, C++, C, Golang, Scheme, RISC-V/x86, SQL, HTML, CSS, JavaScript, Latex

Technologies: Scipy/Numpy/Pandas, NLTK, Keras, Scikit-learn, Spark, OpenMP, Intel AVX, Bootstrap, MySQL, AWS EC2

Spoken Languages: Native English speaker, fluent in French, basic understanding of Vietnamese.