Goleta, CA 93117 - Open to Relocation (805) 453-3121

Nathaniel MacArthur-Warner

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EDUCATION

B.A. in Computer Science **Carleton College - Northfield, MN** **Sept. 2016 - June 2020**

- Selected Courses: Algorithms, Data Structures, Software Design, Computer Graphics, Natural Language Processing, Computational Biology, Real Time Systems, Operating Systems, and Quantum Computing
- Senior Project: Leveraged TensorFlow to create a machine learning application for retrieval and summarization of source code, which outperformed competitive baseline models

EMPLOYMENT

Full Stack Web Developer **The Carletonian - Northfield, MN** **Jan. 2019 - Current**

- Designed and deployed new website (thecarletonian.com) for the newspaper
- Developed WordPress theme and plugins, based on continuous dialogue with the rest of the organization
- Utilized AWS EC2, S3, Route 53, and CloudFlare to host the website, providing reliability at low cost
- Responsible for continued development and maintenance of site, and presentation of content

Student Assistant Developer **Carleton Web Services - Northfield, MN** **Sept. 2016 - March 2020**

- Full-stack development and testing of content management systems (Reason CMS and WordPress)
- Created SQL-based tools to migrate content from legacy CMS (Reason) to WordPress
- Established procedures for local development on Windows and Linux using Docker containers, allowing staff to avoid spending money on Apple hardware
- Worked with non-technical colleagues to establish requirements and ensure stakeholder satisfaction

Software Engineer Intern **Begley Research Group, UCSB - Goleta, CA** **June 2017 - Aug. 2017**

- Translated Mathematica-based materials-modeling software into MATLAB to allow the software to be utilized by corporations and government agencies that use MATLAB

PROJECTS

Personal Website

- Utilized the MEAN stack (Mongo, Express, Angular, Node.js) to create an interactive and responsive showcase of my skills and experience
- Hosted using Docker containers on Google Cloud Run at nathanielwarner.us

Transformer-based Code Completion and Summarization

- Designed and trained neural networks, using PyTorch and TensorFlow, for automatic completion and summarization of source code, based on the Universal Transformer architecture
- Created an interactive demonstration that allows users to try the models without downloading anything: nathanielwarner.us/projects/code-completion-demo

SKILLS

Programming Languages

- Proficient: Python, Java, C, JavaScript (including React and Angular), PHP, HTML, CSS
- Familiar: C#, C++, Rust, Scheme

Tools and Platforms

- AWS, GCP, Docker, Git, Linux, Mathematica, MATLAB, Mongo, MySQL, PyTorch, TensorFlow