

Salma Petrov



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EDUCATION

University of Central Florida (UCF)

Aug. 2024 — May 2028

Bachelor of Science in Computer Science — Minor in Digital Media

GPA: 3.65

Related Coursework: Computer Science I (C), Object-Oriented Programming (Java), Computer Logic and Organization, Computer Science II (Advanced Algorithms in Java), Systems Software (Bash)

EXPERIENCE

Return Software Development Engineer Intern

May 2026 — Aug. 2026

Amazon

Arlington, VA

- Implemented event-driven data streaming from **DynamoDB** to a centralized **Redshift data** lake using **Amazon Kinesis Streams**, enabling near-real-time propagation of zonal table changes for global dashboard queries.
- Integrated a new dashboard to an existing internal service owned by Surge, viewable by all AWS internal customers, using **AWS Cloudscape** framework for UI with retrieved data using custom resources with **SQL** queries.
- Utilized AWS services including **Redshift** and **DynamoDB** (Databases), **Cloud Development Kit** (framework for infrastructure), **Cloud Logs** (data logging), and **Lambda** (serverless compute) in the backend for data retrieval.
- Automated global retrieval of 1M+ zonal **DynamoDB** records by transferring data into a **Redshift** data lake and surfacing results on a unified dashboard, with 10K-record batches populating in 6ms, reducing manual retrieval effort.

Software Development Engineer Intern

May 2025 — Aug. 2025

Amazon

Arlington, VA

- Developed a full-stack web application for the S3 Surge team, leveraging **AWS** to improve internal workflows.
- Built a **Claude AI**-powered chatbot using **AWS Bedrock**, integrating a dropdown of predefined prompts that dynamically retrieve relevant data files from **Amazon S3** to provide context-aware responses.
- Integrated **AWS Lambda** and **API Gateway** to process frontend requests, orchestrate workflows, retrieve prompt-specific data from **S3**, and pass context to **AWS Bedrock**, enabling seamless chatbot interactions.
- Collaborated with 11 engineers and stakeholders to develop and present the application to 80+ Amazon employees.

PROJECTS

Gameplay and UI Developer

Oct. 2026

Hampter Run

Orlando, FL

- Contributed to Hampter Run gameplay mechanics in **JavaScript** across 2 modes: platforming and boss combat.
- Enhanced UI and sound integration to improve player feedback and gameplay experience, supporting 3 webcam-based gesture controls through **MediaPipe Pose Landmarker**, which uses 33 body landmarks to detect real-time motion.
- Collaborated with a 4-person team to build a browser game integrating gesture recognition with interactive gameplay.

Frontend Developer and Artist

Feb. 2026 — March 2026

Beary Cozy Cafe Simulator

Orlando, FL

- Worked as a programmer and artist in a team of 5 women in computer science, computer engineering, and art majors.
- Assisted in programming the frontend of the simulator in **Java.FX** framework and drew roughly 10 assets for the game.
- Demoed the project to 25 members at a Women in Electrical Engineering and Computer Science general body meeting.

STUDENT LEADERSHIP

Corporate Vice President

April 2026 — Current

Society of Hispanic Professional Engineers (SHPE) at UCF

Orlando, FL

- Build relationships with industry professionals to secure over \$5k in sponsorships and maintain long-term partnerships.
- Plan professional development programming, including career panels and networking events preparing members for our **SHPE National Convention** each fall, as head of the Corporate and Professional Development cabinet.
- Organize the **Industry BBQ** each Fall and Spring, connecting 200+ attendees with professionals from 6+ companies.

TECHNICAL SKILLS

Languages: Java, Python, C, JavaScript, TypeScript, HTML, CSS, Bash

Frameworks & Libraries: React, Phaser, Bootstrap, jQuery, MediaPipe, NumPy, JavaFX

AWS & Cloud: Lambda, API Gateway, S3, Redshift, Bedrock, CDK, CloudWatch, Kinesis

Developer Tools: VS Code, Visual Studio, Git, GitHub, Linux